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The Chicago Medical Recorder

OFFICIAL JOURNAL
MISSISSIPPI VALLEY MEDICAL ASSOCIATION
TRI-STATE MEDICAL SOCIETY
MEDICO-LEGAL SOCIETY

Entered as Second-Class Matter May 29, 1891, at the Post Office at Chicago, Ill., under Act of March , 1879
PUBLISHED MONTHLY. $2.00 a year. MEDICAL RECORDER PUB. CO., 81 E. Madison St., Chicago

Volume XLVI NOVEMBER, 1924 Number Ten

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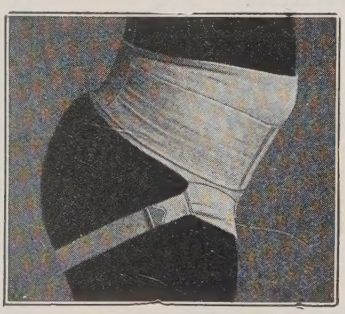

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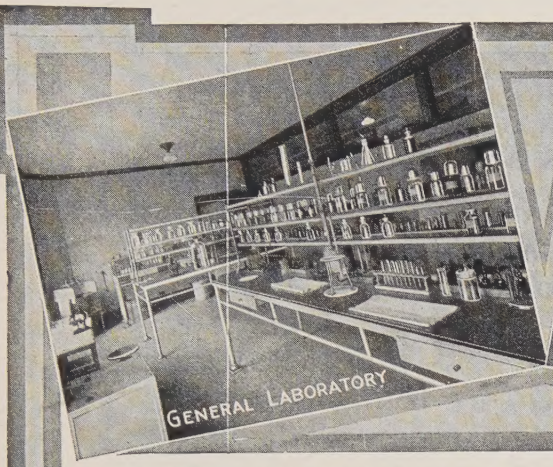

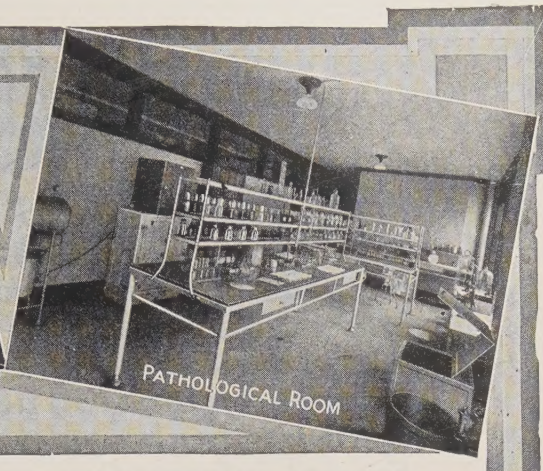

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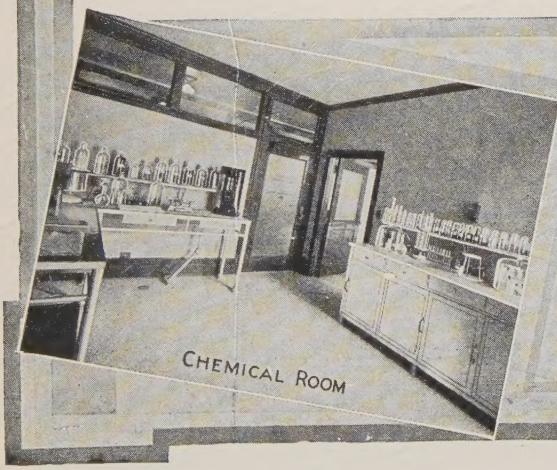

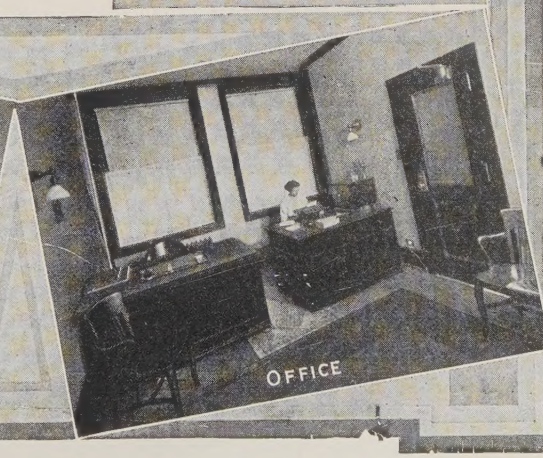

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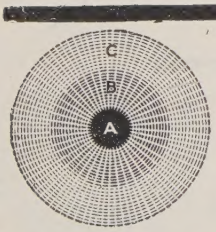

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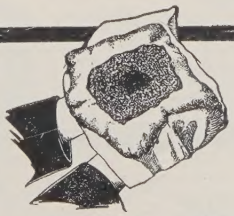

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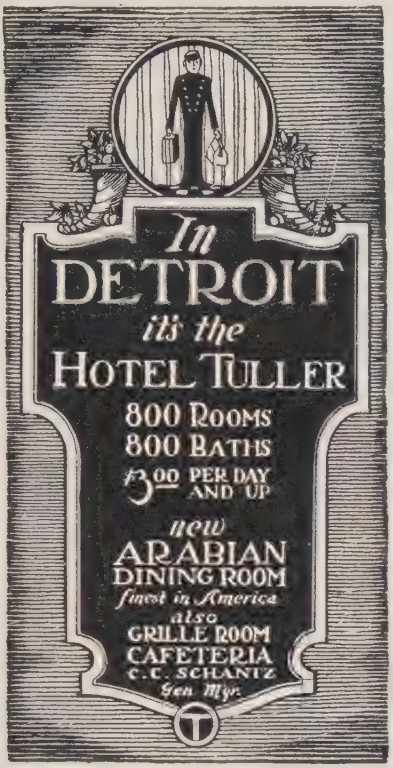

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Original Articles

A PLEA FOR MORE ATTENTION TO THE NUTRITION OF THE SCHOOL CHILD[1]

By Taliaferro Clark, Surgeon, United States Public Health Service

Animal experimentation and observations on the human subject have clearly shown the effect of a lack of certain food elements in causing the development in the individual of a so-called deficiency disease, a number of which diseases are now well recognized. Of greater importance to the race, however, is the fact, not generally appreciated, that underfeeding in certain essential food elements to a degree not necessarily accompanied by evidences of ill health or the production of recognized pathological change, when continued from generation to generation, will caused marked harmful changes in heredity characteristics.

In a recent article appearing in the London Lancet,[2] reference is made to the effects of an intentionally restricted diet continued over many generations on a large population of rats maintained for experimental purposes in connection with the study of cancer. Although the defects in the habitual diet were not sufficiently severe to produce obvious ill health or interfere with the breeding or rearing of the stock, the result was an undersized population with the appearance of being of poor stock. When, in the light of the newer knowledge of nutrition, this diet was supplemented by the addition of small amounts of cod-liver oil and yeast, the stock improved markedly as manifested by a rapid growth.

A dietary deficiency so slight (as in the case of these two groups of animals) as to cause no easily demonstrable effect on the growth of the embryo may have very serious and far-reaching consequences if continued long enough. It was found that the weight at birth of the litters of mothers on the relatively restricted diet was not smaller than that of litters

1. Read before the National Education Association, Department of Child Hygiene, Washington, D. C., July 2, 1924.
2. Vitamin and the Borderland between Health and Disease. By. W. Cramer. The Lancet, London, England, March 29, 1924.

of the mothers on a well-balanced diet. However, as soon as the animals were born and became dependent on the functional activity of the alimentary canal, the difference in the two groups became apparent, persisted, and became more marked when the difference in the two diets was maintained after weaning. This difference manifested itself even when there was no attempt to produce a deficiency disease. When the diet of the rats from the underfed group was supplemented with an ample supply of essential food elements, their growth was not as rapid as the growth of the animals of the group maintained on an ample diet. They never caught up in weight and size. On the other hand, the growth of the rats from the group maintained on an adequate diet, when subjected to an unbalanced diet, was not greatly impaired and at times not impaired at all. In fact, there is considerable evidence that defective nutrition has remote effects with cumulative action through successive generations so that the physical condition of the stock becomes progressively worse."

It is reasonable to assume that rats do not differ materially from human beings in their reaction to dietetic restrictions. Therefore, in view of the more exact knowledge of the principles governing nutrition brought about by studies carried on by a number of scientific observers in recent years, any measure designed to improve the nutrition of the school child may properly be considered from the standpoint of (1) the effect thereof on the individual as an individual and (2) the effect on the child as the potential parent.

THE NUTRITION OF THE INDIVIDUAL

It is unfortunate that in such a large number of instances the infants born to mothers who have been subjected to harmful influences continue to be subjected to unfavorable environment and enter school with manifest evidences of malnutrition or predisposition to this disorder. This may be due in part to economic reasons, parental ignorance of the basic facts relating to nutrition, community customs and habits responsible for the planting of staple crops of inferior value as a food because of the ease and relative low cost of production, and, largely, to the improper wholesale preparation of food before it reaches the ultimate consumer, as in milling, canning, and the manufacture of margarine to take the place of butter. Indeed, there is a strong possibility that the general use of refined table salt may be responsible in some measure for the apparent increase in simple thyroid enlargement noted in many sections of the country. To the foregoing must be added the lack of parental control, food likes and dislikes of individual children, and the success achieved in combating them.

This latter factor is well illustrated by the results of a survey of school children made by the writer a few years ago in a prosperous community in a state of the Middle West.[3] Observations were made in respect of the

3. Rural School Sanitation. Public Health Bulletin No. 77, June, 1916. U. S. Public Health Service.

habitual use of certain articles of food. An appreciable number of these children did not eat breakfast habitually. The breakfast of 40 per cent of the total children reported was composed principally of carbohydrates. In addition, 1,277 children, or 57 per cent of the total number, drank coffee for breakfast to the exclusion of milk, and only 15 per cent used milk, a remarkable condition in an agricultural community in which dairy farming was largely practiced.

The percentage of malnutrition in school children reported by different observers, though varying widely, is sufficiently large to warrant the adoption of, shall I say, extreme measures to overcome this handicap. According to one eminent observer, approximately one-third of the school children of the country suffer from malnutrition, while the percentage of cases among school children reported from different sections of the country ranges from 5.6 to 38.3 per cent of the total attendance, and in some communities an even higher rate than this has been observed.

Recent investigations by the writer and his coworkers seem to indicate that the great variation in the reported percentages of malnutrition observed among the school children in different communities is due in large measure to a too close adherence to faulty standards of measurement. A number of different standards of physical development have been offered for use as a measure of the state of nutrition. Practically all of them estimate nutrition in the terms of height and weight. In the writer's opinion, which appears to be sustained by the results of the investigations referred to above, there is no single gauge of nutrition.[4] This idea is concisely stated by Sir George Newman, British Ministry of Health:

"In endeavoring to estimate a child's nutrition or its opposite (viz., malnutrition), we must think not only of bulk and weight of body but of ratio of status to weight; of the general balance and 'substance' of the body and of its carriage and bearing; of the firmness of the tissues; of the presence of subcutaneous fat; of the condition and process of the development of the muscular system; of the nervous and muscular system as expressed in listlessness or alertness, in apathy or keenness; of the condition of the various systems of the body; and, speaking generally, of the relative balance and coordination of the functions of digestion, absorption, and assimilation of food, as well as of the excretion of waste products."

The determination of the nutritional status of the school child is not merely a question of weighing and measuring. It presupposes the employment of other methods used in medical diagnosis, and should connote provision in greater or less degree for school health supervision.

The school offers many opportunities for promoting the nutrition of school children individually and collectively. One of the prime requisites

4. Indices of Nutrition. Reprint No. 842, from the Public Health Reports, June 8, 1923.

for this purpose is the maintenance of an adequate school medical service, with sanitary supervision of the school building, classrooms and school grounds. Not only is it essential that the child's school environment shall be sanitary, but it should be maintained in such condition in order best to promote the physical and mental development of the individual. Special attention should be given to the hygiene of instruction, and ample provision should be made for play, regulated exercises, and the organization of classes for children suffering from handicaps.

Through the instrumentality of a properly equipped follow-up system, the school can bring about desirable changes in the habitual diet of children in conformity with well established principles of good nutrition. This is important because the child's diet must be sufficient in both quality and quantity to be adequate in the sense of resulting in good and improved physical condition. But it is not alone sufficient to provide a suitable diet for the growing child. Due consideration must be given to his physical handicaps, and to his health habits, so that these on the one hand may be removed and on the other corrected. Attention must be given, therefore, to certain attendant circumstances in providing for the nutritional needs of the school child.

Sleep.—Of the special factors influencing nutrition may be mentioned sleep. The school child, in common with children of any age, needs plenty of sleep—at least 11 hours a day for the new entrants and from 10 to 9 hours for those in the more advanced classes. Delicate and undernourished children should obtain more sleep than is needful for those who are in good health.

Exercise.—The growing child should not over-exercise either at work or at play. This is especially important in the case of the so-called delicate child and the child who does not properly gain in strength and weight. He should observe a daily rest period and be required to lie down from 30 to 60 minutes at a regular hour each day, preferably in an open-air room. If he can go to sleep, so much the better; though rest even without sleep is beneficial. The importance of regulated physical exercise and the alternation of work and rest must not be overlooked.

Physical defects.—A child with physical defects such as adenoids, diseased tonsils, aching and decayed teeth, inflammation of gums, and similar conditions, when neglected, seldom grows properly even on a most carefully considered diet.[5] Provision must be made and these defects corrected before the child can be expected to thrive and grow to be strong and healthy.

Food habits.—The child who habitually eats between meals, who takes his meals at irregular hours, who is served unattractive and improperly cooked food, who has his meals in unpleasant surroundings, to the accom-

5. Correcting Physical Defects in School Children. Reprint No. 742, from the Public Health Reports, April 21, 1922.

paniment of family discord, who bolts his food and who does not chew thoroughly, is usually a poorly nourished child.

Sufficient food.—The growing child must have a sufficient amount of food. Food is measured in terms of heat units or calories, or energy value. The number of calories required properly to nourish the body depends on many factors, such as age, weight, sex, the amount of muscular exercise, the power of digestion, absorption, and elimination. The total daily caloric requirement of children of both sexes during the adolescent period is approximately 1,000 calories greater than that of a grown man or woman, and the protein requirement of the growing child is approximately four times as great as that for an adult. This is due to the larger nutritional demands on the child at these age periods to provide for the relatively greater activity and the demands of the body for the more rapid growth and the repair of tissue.

The right kind of food.—In addition to the proper amount of food, the growing child needs the right kind of food. Besides being a source of body heat and energy, food also supplies material for building the body and replacing the tissues used up by body processes. In order to supply these necessities, the diet should contain fat, carbohydrate, protein, minerals, water, and certain chemically unidentified substances called vitamins. It is important to know that the diet should not be restricted to any one or contain a preponderance of any one food element. It has been determined by scientific studies that in order best to meet the nutritional needs of the child, the carbohydrates should supply about 50 per cent of the total required calories, the fats 35 per cent, and protein 15 per cent. Ordinarily, a well child's appetite will insure his taking the requisite number of calories, but care must be exercised to supply them from the best sources and in suitable proportion.

THE SPECIAL NUTRITIVE VALUES OF DIFFERENT FOOD ELEMENTS

It is important in selecting the dietary of a growing child to bear in mind the special function of the different food elements.

Fat is a necessary and important constituent of a well balanced diet. It is a great energy-producing food. It is deposited beneath the skin and rounds out the body and furnishes protection and support to the vital organs. Certain kinds of fat promote growth more actively than others. For this reason, the required amount of fat for the child should be obtained largely from butter, cream, and whole milk, which possess to a marked degree growth-promoting properties.

It must be borne in mind, also, that fat digests slowly. For this reason a diet containing fat in proper amount has the so-called "staying" quality, and is suited, therefore, to the needs of persons actively engaged in work and those who are required to take their meals at long intervals. It is well to include some fat in addition to the butter in the breakfasts of school

children who are required to take their morning meal at an early hour in order to reach school on time.

Protein is necessary for body building and for the repair of body tissues that are constantly wearing out. Not all proteins are of the same efficiency in the building and repair of the body. There is increasing evidence that the protein of vegetable origin, such as that present in wheat and corn, does not of itself promote the best development of body, and, therefore, should be supplemented by protein of different origin. The best protein for this purpose is that obtained from milk, eggs and cheese, especially for feeding younger children.

Starches and *sugars* are the chief sources of body energy. It has been estimated by competent authorities that the cereals supply nearly two-thirds of the energy-producing food consumed by the people of his country. A properly selected diet for young children should supply a sufficiency of sugar for their needs without addition of sweets in concentrated form, such as cane sugar. The tendency of "sweets" is to destroy the appetite of the child for the more essential articles of diet, particularly when the child is allowed habitually to partake of them between meals.

Vitamins.—McCollum, I believe, is responsible for the statement that "our great national sin is eating of too much highly refined cereals, potatoes, muscle meats and sugars." Such a diet does not promote the best growth and development of a child, although these foods contain fat, carbohydrate, protein, and mineral. In order to keep in good health, to obtain the best growth and development of which he is capable, and be strong and resist disease, a child's diet must include those articles of food which contain an adequacy of the so-called vitamins.

Research on animals has identified three of these substances, designated vitamins A, B, and C, and probably a fourth. They are present in different foods in varying and unequal amounts. All of them are necessary for the maintenance of the body in health, and the lack of any one of them is accompanied by characteristic changes.

The fat soluble vitamin A is important because of its relatively restricted distribution. On the other hand, the distribution of vitamin B is so great that even an ordinary diet of "bread, meat, and potatoes" will furnish several times the amount of this substance necessary for the bodily requirements. Vitamin C is antiscorbutic and is particularly responsive to the deleterious action of heat.

The effect of a restricted amount of vitamin in the usual diet has been well illustrated in the case of vitamin C. It has been shown that the absence of scurvy does not always mean that the body is receiving the proper amount of this substance. Hess has more than once called attention to a condition known as "latent scurvy" occurring with considerable frequency among children, which is manifested by irritability, lack of stamina, and retardation of growth, and which he has cured by the simple addition of antiscorbutic food to the diet. The needs of good nutrition are supplied

and ample amounts of vitamin are furnished by the use of milk, the green vegetables, and fruits in the daily dietary.

Minerals.—An animal on a prolonged mineral-free diet will not live. The minerals regulate the chemical reaction of the blood and other body fluids, influence absorption, and enter into the permanent composition of the teeth and bone. Lime and phosphorus are necessary for the proper development of the bony frame work of the body; sodium and chlorine enter into the composition of the digestive juices; the red color of the blood is largely due to iron. Fortunately, in planning for the diet, all foods, with the exception of those that are refined, such as sugars, flours made from grain from which the outer coat has been removed, and the oils, may be considered adequate sources of mineral elements. Milk is particularly rich in lime.

Water.—It is a characteristic of the human mind to attach but slight importance to things of common experience. It is probably due to this tendency that no great effort is usually made to see that growing children take a sufficiency of water. Water is an essential constituent of all living matter and enters into all the changes of matter and energy of the body. Indeed, approximately 90 per cent of the body is water. Children are inclined to drink too little water, and care must be exercised to see that the growing child takes a sufficient amount daily. In this connection it must be borne in mind that more water is required in summer than in winter, because of the greater loss of water by evaporation from the body. Moreover, the nutritional demands of the child in this respect should not be supplied with the meals to the exclusion of other nourishing liquids, such as milk and cocoa. Water had best be taken between meals.

School lunches.—The composition of the school lunch and its preparation should receive careful attention. The lunches which the children bring with them to school have a special bearing on their nutrition, particularly as regards children attending rural schools. Many of them come long distances after a hurried breakfast, bringing a hastily prepared, poorly selected lunch, or frequently none at all, and remain during the entire school day. Probably in the majority of these schools there are no school lunch facilities, and the children are permitted to bolt their lunches, or to eat them in any manner they please, in uncomfortable surroundings intensifying the inadequacy of the meal.

The school child is at a serious dietary disadvantage when he is unable to return home for the mid-day meal which, in agricultural districts, is the principal meal of the day. Evidence is accumulating of the beneficial effect on the child's physical condition of the addition of milk and a hot dish to the lunch the child may bring with him.[6]

In the absence of special facilities for their care, a mid-morning lunch

6. Twelfth Annual Report of the International Association of Dairy and Milk Inspectors, 1923.

of a graham cracker and milk, or milk alone, should be provided for undernourished children, those who suffer from frequent colds, are chronically pallid, and those who do not satisfactorily gain in weight. Many children of this type are probably victims of "latent scurvy," as indicated by a recent report of the remarkable improvement following the taking of orange juice and nothing else at the mid-morning recess period.[7]

THE CHILD IN HIS RELATION TO FUTURE GENERATIONS

In many respects the importance of efforts to maintain the nutrition of the child as an individual is overshadowed by the larger aspect of the effect of these efforts on future generations. Unless, in addition to improving the stamina of the child, they succeed in bringing about an understanding and appreciation by him of the far-reaching effects of these measures on future generations, the full fruits of such endeavor will not be realized.

A recent writer, referring to conditions in Great Britain, is of the opinion that, under present conditions, the habitual diet of large classes of the population contains only a small fraction of the food hormones present in the food in its natural state, and that the basal articles of food have become so deprived of certain essential food elements that many persons may be suffering from the effects of underfeeding and living in the borderland between health and disease. What is true for England is true of this country, though perhaps in lesser degree. For these reasons no effort should be spared during the impressionable period of the school age to bring about an almost automatic observance of the requirements for healthy living. To this end all basicly related forms of school work should be united and harmoniously fitted to the general plan of health instruction and health supervision, and the combined wisdom of the teacher and the medical advisor utilized for this purpose.

Courses in health should be prescribed and given weight in the school curriculum corresponding to that for major subjects. Health instruction should be adapted to the intellectual capacity of the different age groups. In the early grades, instruction in nutrition should be concerned more with the view of correcting individual food preferences and teaching the importance of milk, the green vegetables, and fresh fruits in the dietary from the standpoint that they help to make the child grow up to be strong. Instruction in the principles of nutrition and nutritional values should be reserved for the older grades.

Special classes for malnourished children should be unnecessary in a well conducted school system providing proper health supervision. Children judged to be undernourished are candidates for open-air classes and open-air schools, where everything possible may be done to restore them to normal, including supplemental feeding, examinations for the correction of

7. Comparison of the Value of Milk and Oranges as Supplementary Lunch for Underweight Children. By Margaret S. Chaney. Am. Jour. Dis. Children, October, 1923.

physical defects, special instruction and graduated exercises, rest periods and follow-up system extending into the homes. Instruction in nutrition should not be reserved and given only to a special group of children, but should include all the children attending school. Such instruction is necessary for the guidance of all potential parents of future generations in order to overcome the ignorance now so commonly observed concerning these principles and values. It should not be restricted to a selected few, largely for the purpose of overcoming an individual handicap, as is so commonly the case.

Educators are now taking a broader view of their responsibilities and a deeper interest in health as a pedagogic problem than was manifest in the very recent past. Each year witnesses better provisions for school health supervision and a closer correlation of health teaching with the teaching of other subjects in the curriculum. One could well envy teachers their opportunity for promoting health and the part they should and do take for the betterment of the race.

THE PHYSICIAN'S JOB

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It is the business of the physician to keep his patient alive. A dead patient is of no use to the public or to the physician. By all means, keep life in the patient.

What is this life that the physician should keep in his patient? Is it possible that medical men do not know what it is that they are working with, and trying to preserve?

To a large extent such seems to be the fact. Search medical literature, search biological literature, and search the literature of philosophy. Nowhere do we find any satisfactory answer. Herbert Spencer said that life is "the continuous adjustment of internal relations to external relations," but I do not think that any physician will recognize that as being the thing he is trying to keep in his patient.

In the article on *Life* in an encyclopedia we are told that "the definition of life must really be a description of the essential characters of life." The writer of that article then proceeds to discuss something else. In the entire two pages under the heading of "Life" there is not one word about the "essential characters of life." We are told only of the house in which life resides, with the added statement that life is a function of the house. I wonder if any physician watching a man die thought that a function was being separated from the thing of which it was a function.

One characteristic of life is that it has the capacity (or power) of operating the organism in which it exists. When that capacity or power

is large, we say that the person is healthy and strong. When we watch a man die, we see that power literally ebbing away.

Now, as it is impossible to separate a characteristic from the thing of which it is characteristic, we are driven to the conclusion that in the same organism there are, at different times, different quantities of life itself. Just before a person dies, it is certain that some life still exists in him, and it is also certain that the amount remaining at that time is very small. Also, as it is impossible to separate the function of a thing from the thing of which it is a function, it is very certain that life is not a function of the protoplasm in which it is found.

The chemical characteristics of protoplasm can be examined only after life has left it. As a consequence, it is impossible for anyone to show that the chemical characteristics of protoplasm change when life leaves it. And as there may or may not be life in a given body of protoplasm, it is evident that life and protoplasm are fundamentally distinct entities. In fact, protoplasm is the house in which life lives, and when life quits a given body of protoplasm, it is not possible to get life back into it again.

Life is an entity by itself, and its main characteristic is that it has the power of operating the mechanism in which it resides. If the main characteristic of life is power of operating, then life must be a form of power, and nothing else. Does the reader think that this is an abstraction? Well, when you hire a man to dig a ditch or do any other work, what is it you pay for if not the power of operation involved in doing the work performed? Do you pay out money for an abstraction?

Life is the thing which the physician is employed to keep in his patient, and to perform his job successfully he should give more attention to the characteristics of life and relatively less to the mechanism which life operates. When life is gone, the mechanism is useless.

Life is a power of operation, and is a distinct entity. But power of operation is the thing we know as "energy." Hence, life is a form of energy. We commonly think of energy as being a tool which the organism uses to perform work, but that is an erroneous view of the matter. The situation is the other way around. Energy uses the organism as a tool in the performance of work, and the organism is dead when there is no more energy in the life form to operate it.

We saw before that at different times there are different amounts of life in an organism, and that when there is not enough on hand to keep the machine running, then it is dead. Ordinarily we look on these changes of amount of life in the body as being something beyond the range of human control, but that is a wrong view to take. The object here is to show the processes by which the quantities of life in an organism are increased and decreased, and how there can be a large measure of control over those processes. We can have that control because we can identify life as being a form of energy, and we have a science of energy.

When a person exercises certain sets of muscles, as in sawing wood or running a foot race, he expends foot pounds of energy, and foot pounds are precise and definite things well known to science. They are also articles of commerce. We buy them from the power station. To expend those foot pounds means that they were in the muscles before the exercise began, and that the exercise or work performed is a process of taking those foot pounds out. If those foot pounds are taken out rapidly, and the process of taking them out is continued long enough, then the person will die from no other cause than such abstraction of foot pounds. As foot pounds are a form of energy, this shows that life itself is a form of energy, but it is not the same form that foot pounds are.

For a person to live, his body temperature must be maintained at or near 98 degrees Fahrenheit. As we live normally in an atmosphere of a lower temperature, we are continually radiating heat to that atmosphere, and the lower the temperature of the atmosphere the more rapid is the rate of radiation. Now, heat is another form of energy and is measured in definite units. If we are exposed for a long time to a low temperature, we may die from no other cause than the loss of heat units by radiation. Here is additional evidence that life is simply a form of energy, and that the amount of life in a person's body is continually changing as there is an income and an outgo of energy.

Heat, light, electricity, magnetism, chemism, are different forms of energy, and all of them may be transformed into each other, either directly or indirectly. Other forms of energy can be completely transformed into heat, but the reverse transformation of heat into other forms can be made only in part. As a consequence, heat is called the "degraded form" of energy, and its appearance is evidence of work being performed.

When a person exerts himself, there is a transformation of his bodily energy into foot pounds of work, and as a by-product of this transformation there is a generation of heat which increases the blood temperature. At the end of a foot race there has been recorded a blood temperature as high as 105 degrees. In ordinary diseases there is an increase of blood temperature known as a "fever," and the appearance of this heat is evidence of mechanical work being performed inside of the body of the person who has the fever. Here is evidence to show that it is energy in the organism which fights bacteria. When a person dies from disease, it is simply a case of all of the available energy in the system being used up before the bacteria are defeated. As a consequence, the question of whether a person dies or lives is usually determined by the amount of life (energy) in the organism at the time it is attacked.

We live in a world in which we are surrounded by great varieties of bacteria which do not harm us. That is, they do not harm us as long as there is life in the body, but as soon as life leaves, the body is quickly

destroyed by those same bacteria. Clearly, it is life which holds these bacteria at bay, and not any form of mechanism.

A person may row a boat, turn a crank, play the piano, manipulate a billiard cue, or swing an ax. In each of these cases, and many more, the person uses the same energy and the same muscles, and the efficiency with which he does any one of these things depends partly upon his energy store and partly upon his practice of doing it. If he has a depleted energy supply, he cannot do any one of them effectively, no matter what his skill may be. And if there is any one of them on which he has not practiced, he cannot do that thing effectively, no matter how great his energy supply may be.

The same things are true in regard to resistance to pathogenic germs. If we live where other people live, we are constantly coming into contact with disease producing bacteria, and our ability to resist those germs successfully depends partly upon our energy supply, and partly upon our practice in combating that kind of germ. If "resistance is lowered," a person is much more likely to be attacked by some disease than when the resistance is not lowered. As resistance is lowered by excessive physical exertions which expend foot pounds of energy, or by exposure to cold which removes heat units, it is evident that the real resistance lies in the quantity of energy which is in the organism at the time.

Life is one of the forms of energy and has characteristics of its own. But energy has some generic characteristics, that is, it has characteristics which are common to all forms. We will give a little consideration to these because they are characteristics of the thing which the physician tries to keep in the body of his patient, but the books do not record them as such.

Energy is defined as stored work, and is the thing which accomplishes results. Matter is the vehicle of energy, the house in which energy resides, and the tool which energy uses in producing results.

For energy to perform work, it must exist at a high potential and must run down to a lower potential. If water is the vehicle or tool used by energy in the performance of work, then the water must be at an elevated position and must run down to a lower position. The degree of water elevation represents the degree of energy potential. The greater the elevation the greater the potential, and the greater the amount of work that can be performed by the use of a given quantity of water. If a spring is the tool, then the spring must be under tension, and that tension must be permitted to escape through suitable mechanism. If a storage battery is the tool, then the battery must be charged. If a gas is the tool, then the gas must be under pressure. And so on.

Energy left to itself always dissipates. For example, if a spring is wound up and permitted to stand, the tension gradually disappears, and the spring loses its power of performing work. If a storage battery is charged and permitted to stand, the charge gradually leaks away. If a

body is heated to a high temperature and then is left in an environment of ordinary temperature, the heat in the body gradually radiates away. And so on for other forms of energy. This characteristic is known in science as the "dissipation of energy."

The dissipation of energy means reducing the energy potential in a body by reason of the escape of part of the energy therein. If energy left to itself automatically dissipates, then it is evident that energy within a particular body can be raised from a lower to a higher potential only by forcing more energy in, and that this can be accomplished only by the performance of work. Also, it will be evident that some tool or mechanism must be used for such performance. In mechanics we have a great variety of devices for that purpose, but finding the fact of a raise in energy potential gives no indication as to what device was used.

These things have been established in mechanics, but operate in exactly the same way in the living organism. A man or a horse can give out foot pounds of energy only when he has those foot pounds in his system at a higher potential than they exist in the surrounding atmosphere. When a man has no more power in his muscles than is in the air which surrounds him, there is nothing he can give off to perform work.

When a man or a horse or any other active animal takes up a sedentary life, his capacity for performing work gradually declines. That means simply that the energy within his system dissipates in accordance with the law of the dissipation of energy. It is a thing with which we are all familiar, but how many recognize this escaping thing as being the essence of that life which the physician is expected to keep in the body of his patient? It should be set down as an ultimate law of nature that inactivity in a living thing always means the gradual disappearance of life. Even the seed of a plant, if it lies too long without going through the process of growing, loses its life because of its inactivity.

The energy potential in a living organism (which means the amount of life in the organism) is raised from a lower to a higher level by the performance of work, exactly as it is in mechanics. The performance of work, whether in mechanics or in an animal, means letting some energy run down from a higher to a lower level. Therefore, the raising of an energy potential means letting some other energy run down, and having it harnessed as it runs. We need to give this a little consideration.

The immediate effect of physical efforts is to deplete the energy supply in the system, that is, to let the energy run down, and perform work in the process of running down. If the efforts are within the range of the capabilities of the organism, then the secondary effect is to increase the energy within the organs through which energy was expended. Such efforts having such result are commonly known as exercise. We do not know the mechanism through which this result is produced, but we know that it is the same result that we get in mechanics, and that it is brought about

in the same way. And we also know that it is a process of getting into the body a larger supply of that thing which the physician is employed to keep in the body if he can.

In the process of living, the heart must beat, the lungs must function, and some other vital processes must be kept going. These all involve a continuous expenditure of a small amount of energy. Outside of these, the energy expenditure is intermittent, as by muscular contraction and mental operations. The income of energy from food must match the total outgo, otherwise the individual will die, as in the examples of over-exertion or exposure to cold before mentioned.

As there must be a limit to the rate of total energy expenditure, rapid expenditure in one direction checks expenditure in another. Thinking and muscular effort both expend energy. If a person is running a foot race he cannot be thinking intently because the available energy supply is not enough to carry forward both processes simultaneously. Digestion and radiating heat both consume energy. If a person goes in swimming immediately after a heavy meal, digestion is checked to enable the organism to meet the requirements of radiation to comparatively cold water.

Empirically, physicians have learned that a sick man should keep quiet and not exert himself physically. The reason is that the energy which would be expended in physical efforts is needed to fight the disease. Here we have it that it is energy in the life form that fights disease, and this is the same thing we found before.

When a person is not fighting some disease, or has reached the point at which he has the mastery over a disease, he should take regularly a fair amount of physical exercise for the purpose of keeping on hand a good supply of energy which may be used in combating any disease with which he may come in contact. It is like keeping a bank account for emergencies. When a person is fighting some disease, he should keep as quiet physically as practicable so that the energy supply he has will be available for fighting purposes and not be diverted to some other purpose.

Each case is, of course, a problem by itself which must be solved in the light of the circumstances existing. What is given here represents general principles which are the same for all cases. The physician is employed to save life. If he has a clear idea of what life is, what its characteristics are, and the conditions under which it is increased and decreased in a living body, then he will have something to help him in solving problems as they arise.

1542 Monadnock Block.

PSYCHOTHERAPY IN THE TREATMENT OF SYPHILITIC DISEASES*

By Paul E. Bowers, M.D.
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The mechanism of the influence and the effect of mind upon the body is still a mystery. Sensation is transformed into thought and thought initiates muscular action; thought likewise, through the emotions, modifies the bodily secretions in some mysterious fashion. Various theories have been offered to explain these phenomena, and among them is the interesting and most logical hypothesis of Ramon y Cajal, which has been labeled "The Law of Avalanche." There is no need, however, for discussion of these theories in this short paper.

Mental suggestion as a mode of assisting healing is as old as the practice of medicine itself. The modern conception of suggestive therapeutics embraces the idea that it is a definite procedure based on the physiological laws of psychology and not merely the indeliberate, unconscious suggestion and power of personality that a physician may exert upon his patients in the treatment of their disorders.

Briefly, psychotherapy may be defined as the deliberate use of the power of benevolent suggestion in the treatment of disease. Psychotherapy cannot affect malaria, syphilis or pneumonia directly, but it can help the patients suffering with these disorders to assume the attitude of mind which will enable them to marshal their physical and mental powers in the fight against disease.

THE PSYCHOTHERAPY OF SYPHILIS IN GENERAL

Our laudable enthusiasm to prevent the spread of syphilis, and our praiseworthy endeavors to cure this disease have led us to commit serious strategic errors in some instances. The element of fear in sex instructions has a legitimate place, for this emotion exerts a tremendous influence in regulating human conduct. Frequently the horrors of syphilis have been portrayed in lurid, melodramatic word pictures, untempered with cautious judgments or with the ameliorating assurances of hope, and, as a result, individuals receiving sexual instruction have been terrifically depressed and some have even committed suicide, according to reports of reliable physicians.

The quack, utilizing the psychology of fear, has often reaped a golden harvest. These unscrupulous practitioners have preyed on the ignorance and credulity of the unsuspecting youth.

In our earnest endeavors to secure a negative Wassermann and a cure of lues, we have too many times treated the disease syphilis and have neglected the patient. Very frequently the patient has suffered from mercurial

*Reprinted from "Venereal Disease Information," issued by the U. S. P. H. S., Vol. IV, No. 4.

or arsenical poisoning as a result of medical enthusiasm. Others have been allowed to become debilitated and anemic because we have unwittingly neglected their general welfare.

SYPHILOPHOBIA

Syphilophobia is frequently encountered by the general practitioner. It may occur independently of syphilitic infection, or it may exist as a concommitant of lues. But whether it exists alone or in association with syphilis it constitutes a most stubborn and intractable state of mind. Persons laboring under its malignant influence are driven from physician to physician for repeated examinations in their endeavor to free themselves from an almost intolerable fear and dread that haunts them continually without respite. Syphilophobia is occasionally encountered among physicians, and the relief of this condition in them is exceedingly difficult, for obvious reasons.

The practitioner, in dealing with the luetic patient must gain his confidence; the patient must be impressed with the seriousness of his disorder, and, likewise, he must be informed of the fact that long and energetic treatment is necessary for a cure. If these important details of treatment are imparted to the patient in a safe and sane manner, which inspires hope instead of producing despair or indifference, a tremendous victory has been won for the patient and for posterity. But if the doctor, in his endeavors to impress the patient with the gravity of syphilis unwittingly gives unfavorable suggestions as to the outcome of the disease, he places obstacles in the way of cure. If the patient is buoyed up with hope he pursues his treatments in an energetic fashion, follows the rules of hygiene laid down for him, secures the mental rest and sleep necessary for health, and is so enabled to carry on his daily occupation. If fear and despair are substituted for hope, the patient neglects his treatments, fails to carry out the rules of hygiene, exposes others to infection by a spirit of "What's the use?" or he turns to the quack, the drugless healer and the faith curer who dishonestly or ignorantly promise him cure, and the opportunity to do the good that might have been done is lost and the unfortunate syphilitic is lulled into a feeling of false security and serenity, as the primary and secondary symptoms subside as a matter of course in the evolution of the disease, and in this state of mind he remains until he is rudely awakened by tertiary symptoms affecting the skin, mucous membranes; bones and muscles, viscera, or, by the blight of syphilis of the nervous system.

CEREBRO-SPINAL SYPHILIS

Once syphilis has invaded the nervous system and has destroyed the nerve cells, there is no opportunity for repair of these tissues. We cannot grow another eye in the place of one that has been enucleated; neither can we replace the functional cells of the brain or spinal cord which have under-

gone pronounced syphilitic deterioration. The general knowledge of this fact has caused a spirit of therapeutic nihilism to prevail, and, as a result, disasters have followed. The exudative type of nerve syphilis so resembles the parenchymatous form at times that the two types of disease cannot be distinguished and in event the former type is taken for the latter, hopeless prognoses will likely be rendered and active treatment neglected.

Whenever the diagnosis of nerve syphilis has been made, psychotherapy has a role to perform. There are warnings, instructions and advice to be given which, if followed, will delay the progress of the disease. Every individual suffering from nerve syphilis should be instructed to avoid hazardous occupations which are likely to result in exposure to trauma. I have observed the symptoms of nerve syphilis to progress very rapidly in a number of instances where hard labor was indulged in and where jolts and falls were common. This advice is of tremendous importance in the industrial world, and often we see persons suffering from syphilis of the nervous system suing employers for damages because they have erroneously believed that their disabilities were primarily due to trauma received in the pursuit of their occupations. All athletic sports are tabooed for nerve syphilis cases. Patients of this type should not be permitted to indulge in occupations or positions requiring intense application, worry or annoyance; neither should they have charge of financial operations of any character, for strenuosity, excitement and mental concentration bring on states of mental fatigue and induce insomnia, which is so detrimental to the nerve syphilis cases. A quiet, sedentary life, free from emotional strains and business perplexities, is in order. In fact, these persons should live their lives as elderly persons.

Among the accidents of nerve syphilis, none are quite so disabling as is paralysis. "An individual is as old as his arteries" is a truism oft repeated and in accordance with this statement the syphilitic suffering from cerebral arteriosclerosis has his age many years advanced. The hemiplegia with which he may have suffered cannot be repaired when there has been an infraction of the cortex, due to the obliteration of a capillary, but this type of precocious apoplexy should serve as a warning against improper living, indulgence in alcohol, dissipations of any sort, and unnecessary exposure to the weather, all of which are likely to further burden the cardio-renal-vascular systems. The patient is to be advised against all conditions increasing the blood pressure.

In these days of trained nurses and sphygmomanometers there is quite a bit of talk concerning blood pressure, and a smattering of knowledge concerning this subject leads to difficulties and needless fears. Patients who have learned that their blood pressure is high, frequently are troubled with fears that they may have "strokes." It is not an infrequent occurrence for patients to come to the office of the physician, complaining of dizziness, vertigo, tingling sensations and numbness in the limbs, and

suggest that possibly they are going to have a stroke of apoplexy. Introspective patients frequently examine their temporal and radial vessels, trying to discover whether they are suffering from hardening of the arteries. I have found this to be true of middle-aged patients of the educated classes, who have suffered from syphilis. It is a common tradition among the laity that one apoplectic stroke is, as a rule, followed by two others, and that the third one ends in death. This idea has caused no end of worry and depression among neurasthenic patients who have suffered from syphilis. These states of hypochondriasis of a pronounced type have been observed amongst physicians. In one instance, a doctor who had nerve syphilis, attempted to commit suicide because of his fear concerning cerebral arteriosclerosis and because of his excessive worry about his condition and unsuccessful attempt at suicide, there developed a mental depression of so profound a degree that he required several months' treatment in a hospital for the insane. The fear engendered in a nerve syphilitic case by a condition of hemiplegia should be relieved and the patient advised in an optimistic manner that life still holds a measure of happiness for him, if he will be guided by appropriate medical advice and pursue his medical treatment as directed. Persistent effort should be made to change the habits of introspection and self-analysis; the mental activities, which are usually limited, are to be diverted into diverse and interesting channels.

TABES DORSALIS

Tabes dorsalis offers the practitioner an abundant opportunity to practice intelligent and logical psychotherapy with wonderful and beneficial results. The drugless healers and other irregular cults of healing have, more or less ignorantly and dishonestly, applied the methods of mental suggestion in the treatment of these cases, and often their methods have been gratifying to the patient, who has gone abroad praising and advertising the procedures of the charlatan as being miraculous and curative. Often, the regular practitioner, in explaining to a tabetic patient the nature of his trouble, has cast him into a state of despair and gloom.

It is customary for the tabetic patient to confuse the symptoms of his disorder with the real nature of his affliction. For instance, he speaks of his gastric crises as stomach trouble and seeks out the healer who directs his efforts toward the supposed digestive disorder; another patient looks eternally for the cure of his sciatica; still another searches for the relief of rheumatism or flat feet; again they may travel the round, searching relief from oculists, looking for cures for their failing eyesight, and the practitioner who gives relief for these various symptomatic expressions of tabes, gets credit, for a time at least, for having made a cure. "Hope springs eternal in the human breast," and the simple measures of relieving flat feet by the use of proper arches, or the administration of a strychnine tonic alleviating the great sense of weakness and fatigue often leads the

hoping patient to feel that he has at last found a cure. The quack, taking advantage of this unfounded optimism, bleeds the patient for further monetary gain, but the honest practitioner utilizes this state of mind to keep the patient happy and cheerful as possible, but at the same time restraining him from harmful activities in which he is likely to indulge because of his false sense of cure and security.

The average tabetic patient lives in fear, ever waiting for an attack of terrific pain in the abdomen, or elsewhere, for the coming of dizzy headaches, that he will fall while walking, and for the other symptomatic expressions of tabes which cause him pain or discomfort. Often these tormenting fears rob him of sleep, deprive him of mild, healthful exercises in the fresh air, deny him the pleasures of social life and cheerful association. The removal of these states of fear is the purpose of psychotherapy, and likewise it is one of its victories. If a normal person should deprive himself of outdoor exercise, remain in the house, avoid the company of cheerful companions, lose interest in current events, and fail to keep in touch with life in general, he would, in a short time, become introspective, moody and depressed, and there would be a corresponding decline in his physical health. This is doubly true of the tabetic.

Often the tabetic fails to take the proper amount of food, laboring under the belief that if he does he will be punished by an attack of gastric pain. This habit of refraining from taking the necessary food really makes his condition worse, for without some bolus of food in the intestinal canal, the tendency to constipation is aggravated.

The gastric crises, unwisely handled by the physician, lead the unfortunate tabetic into the throes and torments of drug addiction. It is at once acknowledged that the pains of the gastric crises are often so intense that they will only yield to morphine, and for this reason the greatest care must be exercised in the use of this drug, lest a habit be established. The patient must be taught self restraint and control, and this can be done by intelligent and sympathetic mental suggestion, so that there is no hasty resort to the use of the ready hyperdermic needle. I have known locomotor cases to vigorously criticize the physicians for adding to their incurable disease the degradation of the drug habit, and all physicians likewise know that the kindly doctor has often been falsely and unjustly charged with this grievous mistake. To the condition of gastric crises is added the psychic symptoms of depression. The patient believes that his pains will grow worse and worse, and often he grows hysterical about them. Pseudocrises often occur, and these are harder to treat in many respects than the real crises, on account of their intractability to suggestion. Psychotherapy will assist the patient in meeting his paroxysms of pain and enable him to master his emotions to the extent that he does not become a victim of the drug habit. The patient should be informed that, as a rule, these paroxysms will grow less and less and finally disappear in the course of the disease.

With the patient's hope restored and his confidence well established in the medical advisor, the patient's muscles may be re-educated by the methods of Fränkel and others to regain much of their former use, bed-ridden patients learn to walk with the use of cane or crutches, and others, who formerly walked with canes learn to walk so well as to discard them and once more resume occupations requiring the exercise of their lower limbs. The author has used injections of sterile water when using the methods of muscular re-education, and the effects were decidedly advantageous in increasing hope and in stimulating the patient to steadfastly persist in his treatments.

After the tabetic patient learns to use his limbs to a markedly improved extent, advice and suggestion are again necessary, lest the patient overdo and fatigue himself. It is a notable fact that many tabetics are quite insensible to the sensations of fatigue, and this point must ever be borne in mind in regulating their exercise.

PARESIS

It is generally agreed that paresis is a syphilitic infection of the parenchymatous cells of the cortex and that such disease is always fatal. Southard held the opinion, however, that possibly this idea was incorrect and decried this fatalistic view, and recounted cases which had been diagnosed as paresis by competent observers which had, under intensive treatment, made apparent recoveries and had presented no signs of paresis for several years. While giving due credit to the opinions of the late Doctor Southard on this point, it would seem, from the mass of evidence and experience of equally competent neuropsychiatrists that there were errors in the diagnoses of the cases reported.

Psychotherapy no doubt has a prophylactic value, so far as paresis is concerned. It appears from statistical evidence that excessive worry, strain, pressing business responsibilities, excessive study, and like conditions which keep up a continuous state of cerebral hyperemia, predispose the syphilitic to an increased susceptibility to the development of paresis. Educated men who have had the misfortune to acquire syphilis, knowing the possibilities of this infection, have gone about brooding and have been continually terrified by the haunting spectre of general paralysis of the insane. There can be no doubt that the vulnerability of the nervous system is increased and the invasions of the spirochete more likely in those who are subject to the ravages of anxiety. Syphilitics who show evidence of invasion of the central nervous system should refrain from following those occupations and pursuits which are likely to be attended by worry and emotional stresses, and due advice about this matter should be given such patients.

While it is still a matter of discussion as to whether alcohol plays an important part in the production of paresis, the preponderance of opinion

and evidence is that alcohol has a disastrous effect upon the luetic and hastens the development of nerve syphilis. My personal experience has led me to accept this viewpoint. One noted authority has tersely remarked that the surest manner to acquire paresis was to become infected with syphilis, take inadequate treatment and indulge in the use of alcohol. The physician should warn all his luetic patients against alcoholic liquors in definite and positive terms.

As has been previously stated, paresis often resembles the exudative type of nerve syphilis and very often cannot be differentiated from it by our present methods of diagnoses, and since this is the case, all cases diagnosed as paresis should be given the benefit of the doubt and should be placed upon active anti-syphilitic medication and, as a result, many apparently hopeless cases will be cured or relieved. Even if we are certain that the patient has paresis, he should not be informed of this fact, because only harm can come of it. Among the educated classes, it is well known that paresis is incurable and that death occurs in a short time. During the early stages of this disease, patients frequently have insight into their condition, and it is not unusual for paretics to commit suicide. In every case of paresis, it is absolutely imperative that some member of the patient's family be apprised of the patient's sad condition so that appropriate steps may be taken to safeguard the family name, to care for the patient's property rights, and to save him from his defects of judgment, which are likely to lead him to commit social indiscretions.

During the periods of remission, which occasionally punctuate this disease, psychotherapy is of enormous value in the care of the patient. The relatives of the paretic should of course be informed of the temporary nature of the remission, and they should not relinquish the necessary care and supervision of the patient. Often the relatives, in clinging to the last hope, are misled into believing that the remission is a real cure, but in enlightening the family the physician should take care not to disturb the quiet and hopefulness of the patient's mind. Remissions are longer in those cases, when the patient's mind is allowed to remain tranquil and undisturbed by the fear that the symptoms of paresis will soon return.

Patients, in the state of remission, are prone to discuss with their medical advisors the diagnoses of their cases, and often they insist that mistakes have been made. With this, the physician can tactfully agree, so long as the supervision of the patient is not lost, for, in due course of time, the active symptoms of paresis will return.

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Volume XLVI CHICAGO, ILL., NOVEMBER, 1924 Number Ten

PUBLISHED MONTHLY

MEDICAL RECORDER PUBLISHING COMPANY, 81 E. MADISON ST., CHICAGO, ILLINOIS

The Editors and publishers are not responsible for the views of authors expressed in these pages

To Canada and Foreign Countries $2.50

MEMORIAL TO PASTEUR

Under the leadership of Dr. Frank Billings an effort is being made to raise a sum of money to commemorate the memory and further the teaching of that great genius of medicine, Louis Pasteur. The discoveries and life labor of Pasteur gave curative medicine, preventive medicine and surgery the impetus that has made each in its field the wonder of the age. Combined, they make the profession that has done so much for human betterment in our day and generation. Surely the work of eradicating suffering, wiping out disease, lengthening life and adding to human efficiency must be given a leading place amid all the phases of progress in the affairs of men. It does not seem that any other genius can take precedence, not even an Edison or a Marconi.

Then who should contribute to this worthy cause? Not the physicians, for as disease is banished their revenue is reduced, and besides every active doctor gives about one-third of his time, his strength, and his talent to the public free. If it were not so, the poor would be neglected. All human activities that need clear minds to manage and sturdy hands to execute are indebted to Louis Pasteur. Physicians who have patients of wealth should see to it that their attention is called to the worthy need of the Pasteur Memorial.

THE MENACE OF PLAGUE

Now that Illinois is officially declared free from pneumonic plague, it will be the part of prudence to put forth every effort we can to lessen our rat population. Rats feed upon grain that has been garnered for human food, and it is no exaggeration to say that the grain they consume would more than feed all the indigent poor of the state. Rat fleas are the cause of bubonic plague, and bubonic plague is the foster mother of pneumonic plague. Rat fleas can only be destroyed by destroying the rats that harbor them. It will be poor policy to wait until there is positive evidence of infection when all rats are a nuisance and a very expensive nuisance, aside from the positive evidence of their being the host of the flea which caused the pest that decimated the population of European and Asiatic countries from time to time throughout the ages.

We should have ordinances or laws making it obligatory to rat-proof all buildings in the city and state, while every city, town, hamlet and farm should begin the work of thorough rat extermination. We are fortunate to have efficient, alert and conscientious health officials in Dr. Rawlings,

Superintendent of Health at Springfield, and Dr. Bundesen of Chicago, who will doubtless take wise and vigorous action.

Practicing physicians can do but little toward preventing the pest, but should be prompt in reporting all pneumonia and especially careful in observing all pneumonias they meet in their work. Physicians can be counted on to back up every move of the authorities in every effort that is made to rid the city and state of its useless, harmful, friendless but enormously large population of rats.

With plague in deadly form in California and also reported in New Orleans we are in danger.

DRUG ADDICTION

Captain Richmond Pearson Hobson, President of the International Narcotic Education Association, in an article in the *New York Times*. November 9th, states that a survey made by the U. S. Treasury places the number of drug addicts in this country at over a million people. As drug addicts are well known to be very sensitive, it is probable the number may be two million. Either figure is enormous. Few realize how easy it is to become addicted to such seductive drugs as heroin and cocaine.

Captain Hobson argues for public education as to the dangers of drugs in addition to all other efforts at control. Most of the drugs now used it is thought are smuggled into the country, as they can be put up in small packages. Aeroplanes may be used to carry them over the border and even carrier pigeons.

Captain Hobson lays stress upon drugs as incentives to crime and says thirty-six grains per person are now used in the United States and twenty-seven in India, three in England and one in Italy. These figures show the growth of addiction in this country notwithstanding the anti-narcotic law.

There is a popular impression that drug addicts, with a few exceptions, are naturally of unstable minds. If that be so, the value of educational measures to such will be of limited value.

As heroin is the most flagrant offender, it should be entirely eliminated from trade. It can be dispensed with in medicine easily. Physicians as a rule are increasingly loath to prescribe narcotic drugs, but some are still careless.

In hospitals narcotics, when needed, are always administered by the nurse or other attendant. In family practice they are often left to the patient's own discretion. This is a dangerous practice that physicians can guard against to advantage.

In former times opium addiction was frequently laid to the professions, and not without reason. Now the great spread of the evil is through underhand traffic that baffles all law and vigilance.

There is some need in medicine of opium and cocaine, but some day we must be prepared to have them both prohibited.

THE PASSPORT NUISANCE

At present, the greatest imposition practiced on the people of this country is the passport system and the visas required, instituted by the United States, and by necessity followed by all other nations. It can only be described by calling it an infernal, humiliating, entirely unnecessary nuisance, which has caused the universal revival of the art of swearing in all languages, English and otherwise.

No one can appreciate the experience except those who have gone through it and survived. It is up to the United States to get back to sanity, as the war is over for six years and it is no longer a necessity to consider every traveler a crook, spy, or Russian bolshevik in disguise.

We are glad to see from the *New York Times* of Sunday, September 21, that a New York representative will ask Congress to eliminate this rotten system. For the consolation of those who have undergone this punishment, and for the benefit of those who are contemplating a trip abroad, we take pleasure in reprinting the above-mentioned article:

"When the next Congress meets, Americans will reclaim one of their lost liberties, if Representative Sol Bloom of New York can prevail. He will move that any American be permitted to travel in foreign lands with all the freedom that he may cross the Hudson River. It is well enough to require passports, Mr. Bloom believes, but he would end such abominations as visas, fees and other burdens of the innocent abroad. He has just returned from a trip in Europe. Personal observation of the passport blight and letters from a host of his countrymen who await the rallying call lend vigor to his cause.

"On the day that the average American determines to go abroad he embarks upon a great adventure. Often that decision is reached in the midst of steamship schedules and colorful folders depicting the glories of a Winter on the Riviera. But the passport difficulties that lie between a quiet home in these United States and the attractions of Nice are not included in the guide books. They represent an experience that must be lived through before real understanding comes to the tourist.

"This year it is estimated that 250,000 Americans will have spent the ten million needless dollars for passports and vise fees. That is the official cost. What the unofficial will be in the form of petty tribute levied under the penalty of lost trains and departed ships is a sum past computation. But every ship returning to America brings with it a power of indignation that cannot be forever denied.

"On applying for the most precious of documents it is necessary that the applicant submit a photograph of himself and answer a number of questions. Stress is laid upon his citizenship, to which no one could object. Then comes the question of where he was born. Often there is a demand for the applicant's birth certificate. This apparently simple request has caused more trouble to a larger number of Americans than almost any one

question which the mind can conceive. Numbers of them were born before the period when these certificates came into common usage.

"Mr. Bloom has one case on record where the applicant was a woman 90 years old. She had been to Europe several times and previous passports were submitted as evidence. But official wisdom rejected such proof. She must have a birth certificate. But there had been no such instrument. Then she must submit an affidavit by persons present at her birth. They were all dead. Then her son must submit an affidavit testifying that she was his mother and setting forth other required facts. After intensive efforts, this affidavit was obtained in a distant city. Then the applicant must appear in person. She went, with considerable difficulty. Another official who chanced to be in authority said that there had been no need of so much bother. The former passports would have sufficed.

"Complications of this kind arise daily in passport bureaus; not only in New York, but wherever they are issued in the country. In a similar instance another woman of some years wished to travel abroad. She submitted credentials, but the fact that her husband had been a naturalized citizen prompted a request for his official papers. These could not be found. Then where had he been naturalized? A simple request, save for the fact that he no longer was alive and had been naturalized a half century before, just where nobody knew. The passport bureau was insistent. Mr. Bloom, called in to help, expended $50 in telegrams dispatched to every town where the man had been known to live. And finally the miracle was achieved and the record found.

"These illustrations are not extreme cases, but fairly typical of the practice in issuing American passports. Broadly speaking, it is a fortunate man indeed who can obtain credentials for a trip abroad without undergoing difficulties to appall the boldest. Assuming that all requirements have been met, a $10 fee is charged for the passport. Previous to 1920 the fee was $2, but in that year Congress raised the impost to $10. The same act also established a like cost for every American visa of foreign passports. This amounted to an entrance charge levied upon Europeans visiting our shores. Practically every European nation responded by levying a similar charge against Americans. This year we may receive something like $1,000,000 in passport fees from foreigners. Our own citizens will pay a sum not less than $10,000,000 to European Governments. At a moment when the citizens of other nations cross continental boundaries for a charge beginning at 60 cents and ranging to a dollar or two, Americans must yield $10 for the same privilege. Such is one aspect of the passport blight.

"But it is only a single aspect. To consider each phase would be a prodigious undertaking. No single agency could ever measure all the discomfort and woe caused by the international tangle over passports. In obtaining one of these documents it is necessary to state what countries the applicant will visit. Perhaps he will select England, France and Ger-

many. The choice is noted upon the passport and the Governments of those countries are requested in the document to 'pass freely without let or molestation' the man who bears this official recognition by the United States. It also is requested that he be extended 'friendly aid and protection' as would be accorded a citizen of these other Governments on visiting the United States.

"The first evidence of this 'friendly aid and protection' is the necessity for a visa at the British consulate. That will cost $10, exactly the price charged a British citizen entering our doors. So the American who is about to risk his happiness on foreign shores can have no complaint upon that score. Provided with passport and visa, $20 net, he goes aboard ship. Perhaps he is asked to exhibit the document or his general respectability may pass muster. Then he can breathe a whiff of old ocean and put aside his passport troubles until he sights Southampton or Liverpool.

"Mr. Bloom is convinced that England handles the passport muddle better than any other European power and with as little annoyance to visitors as possible. But the sum of this trouble is still considerable. Examination of credentials naturally takes place at the port of arrival. These are not unreasonably rigid. In most cases the traveler will proceed to London and go to a hotel. But there the easy method of registry back home is unknown. No mere signing of the register, with a prominent William Jones and the name of his town in Idaho will suffice. He is required to fill in a blank specifying the place of birth, residence, occupation and purpose of visit and term of stay.

"Perhaps William Jones draws a long breath over those requirements. But no matter, he is out for a holiday and means to enjoy himself. So he answers and signs and fills in blanks until his fingers cramp, but his smile endures. It is not every day that a man gets to England. And England will not bother him again about his official description, business and intentions until the day comes for him to leave. Then he presents his passport at the border or dock and is formally "checked out." Meanwhile, he will have visited the French consulate and surrendered $10 for the privilege of glimpsing the Parisian boulevards. That makes the bill one passport $30 net. It is becoming a valuable souvenir.

"If the seas are kind and fortune favors, a smooth trip ensues to Calais. Then comes the first hint of real trouble which Mr. Jones has encountered. He is crowded into a tiny box of an office and his baggage examined with a zeal that suggests that he is suspected of carrying valuable contraband. Usually none is found, but often he learns that his visa will not pass scrutiny. What is the trouble? French shrugs, the lifting of eyebrows and a rapid fire of talk fail to enlighten. In everyday American parlance, Mr. Jones is 'up against it'—the passport blight. He is unable to argue, his train is waiting, what can he do?

" 'Passport regulations throughout Europe invite a system of exorbitant

fees for ordinary attentions dispensed as special privileges,' said Mr. Bloom. 'Everywhere the traveler goes he is subjected to impositions. Perhaps he arrives at a passport office in time to learn that it has just been closed. His train leaves in an hour. He will be assured that there is nothing to be done. But stay—maybe the director can be reached at his suburban home. It will require a cab and a messenger. The visa perhaps can be obtained by great diligence. Will the American pay the cost? He will—almost any price to get away.

"All of these difficulties do not arise at Calais, Cherbourg or some other port where the American first sets foot on European soil. But there is an infinite number of technicalities, and one or more inevitably overcome the tourist early in his sojourn. When they have been conquered the road lies open to Paris. Once there, it is necessary to recount again the visitor's previous conduct through life and his future intentions before a hotel will receive him. Then his passports may be required for police inspection. That is not the rule, but an occasional requirement in these days of peace.

"If everything goes well, the American may next inspect Paris and wander over the fair land of France almost as he pleases. But on the day that he determines to visit Germany a new series of difficulties rise upon his horizon. By this time he is reconciled to the $10 visa fee and pays the Germans tribute at their Paris consulate, just as he has paid the British and French before them. His passport now bears souvenirs worth $40. He boards the train for Berlin with the document well guarded. At the border it is inspected with minute care by the French. Then the train moves forward a little and the Germans in turn go over its contents. There is prolonged search of baggage on both sides of the line, and, too often, the visitor learns that a German inspector can raise many new questions which his French predecessor has overlooked. Once more the opportunity for largess opens rich possibilities.

"But finally the train goes on and the traveler with it—if he has not fallen a prey to some official entanglement. In Berlin the Paris experience is repeated with variations. Frequently there are inspections of credentials en route and questions to be answered on arrival which do not come within the regular examination. Mr. Bloom estimated that many travelers to Europe this Summer had spent a fourth of their time in satisfying officials that they were what they represented themselves to be and had no dangerous motives against the peace of Europe.

" 'It is easier for a man to register and vote in the United States than to undergo a passport inspection,' he said. 'I propose to ask that we dispense with all visa fees, when the European countries will follow our example. They have levied the $10 charge wholly by way of reprisal. Responsible officials have told me that this charge undoubtedly would be remitted if we took the first step.

" 'An American passport, bearing the signature of Mr. Hughes, should

open the door of any friendly country. We are assured in treaties with almost every European power that our citizens shall receive the treatment tendered those of a most favored nation. But no one who has traveled in Europe recently could construe passport restrictions in the light of favored treatment.

" 'Before the war Americans could visit Europe without passports, if we except a few countries. Russia, Turkey and Egypt, I think, still had passport restrictions. Even in these countries a visa was unnecessary. But today a traveler cannot move in Europe without producing his official identification and undergoing many unpleasant, costly experiences. One merchant wrote me that passports and visas for himself and family had cost $300 this summer, the price of a trip abroad in other days for one person.

" 'I will ask Congress to repeal the legislation setting up a charge for American passports and laying the further impost of a visa fee. It is the only way to restore travel conditions to normal. We have established a regretable example which Europe quickly followed, and until we correct our mistake Europe certainly will not deviate from the practice we have taught her.'

"Mr. Bloom pointed out that the visas issued abroad generally ranged from six weeks to a year. Therefore, the passport which cost $10 on September 15 may be worthless to the visitor in the same country on November 1. The regulations governing these matters are extremely hazy, and the American has no means of knowing whether he has been mulcted by legislative authority or the whim of some official, interpreting the regulations to please his own fancy. Often the visitor is inclined to suspect that many officials do not bother with the rules, but charge what they please.

"As matter stand, Americans traveling abroad are penalized from $20 to several hundred dollars for the opportunity to look upon the glories of the Riviera, so well described in the folders which they perused at home. The cost of business is excessive; how large it would be impossible to say. But thousands of Americans travel to Europe on business errands almost as regularly as they go to Chicago. Probably 100,000 American students are engaged with their studies in Europe at this time, a class which pays heavy toll under the passport regulations.

"When it became known abroad that Mr. Bloom was studying the passport blight, both in its usual and unusual forms, he received letters by the basket urging him to act. These letters are still arriving and he will be ready to go before Congress with as strong a case as ever counsel argued. Mr. Bloom will not be content with half-way measures. He is willing to accept the passport, but would promptly abolish visas and the fees incidental. The old charge of $2 for a passport he does not regard as excessive, but $10 constitutes a premium far too high. He will point out that an immigrant entering this country was required to have $50 capital. The immigrant also must pay a $10 visa fee, or one-fifth of the sum required to start life in the new land.

"Mr. Bloom believes that the elimination of these restrictions would go far to encourage travel abroad and result in international benefit. He said that the number of Americans traveling in Europe this year was excellent evidence of our interest in European problems. The fact that so many of them went for the first time he looked upon as a means of education at home, because every visitor serves to instruct those around him on conditions abroad. Even the consideration of friendliness between peoples and a better general understanding rest in no small degree on the acceptance of American passports in civilized lands at their face value, a guarantee by the United States that the holder is a citizen entitled to all privileges.

"Some of the letters addressed to Mr. Bloom provide eloquent evidence of the troubles that Americans experience in Europe. One of these, written by a young woman from Carlsbad, was as follows 'I read with hearty sympathy of your efforts in regard to the passport and visa nuisance. In Switzerland I decided to visit Vienna. So I called at the Austrian Consul's office in Zurich and, after waiting in line for more than an hour, in a dark hallway used for carpets, etc., with no chairs furnished, I was finally told that the office would be closed for two hours, 12 to 2, and it was then 12. As I wanted to get a 2:10 train, I argued so violently that I was finally ushered into the presence of the Consul, who spoke not a word of English and very little French. Then I received the visa, but was charged considerably over $10, or 66 francs, to be exact, when the day's rate in Swiss francs was 5.56 to the dollar.

" 'Finally reaching Vienna, I decided to go on to Budapest, and called at the Hungarian consulate. I was greeted by a soldier, who demanded my business, then handed me a long form to fill in, said form being in Hungarian, and I paid a small fee for the form. After the combined efforts of two German students and myself, we got the Hungarian questions answered and I joined a long line of people. The man at the window spoke no English, naturally, and I was agreeably surprised when the fee was only 140,000 kronen, or $2, instead of 700,000 kronen I had firmly clutched in my hand.

" 'The passport was thoroughly examined, my money paid over, and word translated to me that if I called at 2 o'clock I could have my passport back with the needed visa. It was then 11. I received only a tiny slip of paper with a number on it and was in mortal fear that my beloved passport, representing a sizable fortune, was gone forever. However, on returning at 2, I received it back joyously.

" 'On arriving in Budapest I was greeted at the hotel with a demand for the passport. Next day the police called and said it was no good; that I had only a transit visa and could stay but twenty-four hours. However, by the passing of a few Hungarian kronen I did stay four days, but was constantly reminded that I had better go.

" 'While there I yielded to the usual method of paying a tourist agency

to get my remaining visas for Czechoslovakia and Germany and considered the fee well invested. Hereafter I shall do my traveling on Lake Michigan sans visa troubles.'

"Such was the typical experience of one American visitor who acted on the anticipations aroused by the steamship folders. It is a situation that has long demanded correction, but one which has been left to Mr. Bloom to tackle in his role of another Charles Pinckney arising to say: 'Millions for defense, not one cent for tribute.' Amen!!"

THE ROCKEFELLER FOUNDATION

The Annual Report of the Rockefeller Foundation of 1923 is before us, and as usual it is one of the most impressive things we encounter during the whole year. We have written so many editorials on the subject of the Rockefellers that we hesitate to say anything more, suffice it to say that in our opinion the Foundation is the biggest institution on earth, and it accomplishes more for the well-being of humanity than any or all other agencies combined.

It is a reflection on any citizen of the United States, able to read or write, with enough intelligence to vote, who does not inform himself of the vast good accomplished by the Rockefeller Foundation by writing for a copy of the Annual Report of 1923 which may be obtained at 61 Broadway, New York City.

ANOTHER GOLD CURE

Another gold cure is announced in the daily press. This cure is for tuberculosis and comes from Prof. Holger Moellgaard of Copenhagen. Again we are going to witness a rush upon doctors by the afflicted, buoyed up by hope, and again we will witness disillusionment and despair among those who fail to be benefited. Again too we are going to hear of those who have been swindled by charlatans who secure or pretend to secure Prof. Moellgaard's solution called Sanocnysine.

It is bad enough to be afflicted with tuberculosis, but it does seem a serious imposition on unoffending sufferers to arouse false hopes and impose cruel expense upon them by such loose and unguarded publications.

Whatever there may be of merit in the new remedy, it cannot be supplied fast enough to meet the demand, for in the world around there are probably millions who have tuberculosis in some form.

Practical Pedodontia or Juvenile Operative Dentistry and Public Health Dentistry. An introductory text for students and practitioners of dentistry by Floyde Eddy Hogeboom, D. D. S., Instructor in Pedodontia, College of Dentistry, University of Southern California, member staff of Children's Hospital, Los Angeles. Formerly member Health and Development Department, Pasadena City Schools. Illustrated. St. Louis. The C. V. Mosby Company. Price $3.00.

This book is very valuable in calling attention to the proper care of the teeth of children, in other words, preventive dentistry, a subject altogether too much neglected. It is not a book on oral hygiene, but a book devoted to operative dentistry for children. It is splendidly illustrated, and we wish it could be read not only by dentists, but also by physicians, so the latter may realize the absolute necessity of practical pedodontia.

Fundamentals of Human Physiology. By R. G. Pearce, B.A., M.D., formerly Director Medical Research Laboratory, Lakeside Hospital, Cleveland, Ohio; formerly Assistant Professor of Physiology, University of Illinois, Chicago, Illinois, and J. J. R. Macleod, M.B., D.S.C., F.R.S., Professor of Physiology in the University of Toronto, Toronto, Canada; formerly Professor of Physiology, Western Reserve University, Cleveland, Ohio. Assisted in the Third Edition by Dr. Norman B. Taylor. Third Edition. St. Louis. C. V. Mosby Company. Price $3.50.

This is a good, practical handbook on physiology not only intended for students, but for all others who are required to learn something of physiology before proceeding in other scientific studies. This, a third edition, has been brought up to date, and considering that the authors are the well-known Dr. Macleod of the University of Toronto, and Dr. R. G. Pierce, formerly of the University of Illinois, Chicago, it is hardly necessary to assure our readers that the book is of the highest merit and authoritative throughout.

The Surgical Clinics of North America. (Issued serially, one number every other month.) Volume 4, Number 3 (Chicago Number, June, 1924), 245 pages with 108 illustrations. Per clinic year (February 1924, to December, 1924). Paper, $12.00; cloth, $16.00 net. Philadelphia and London; W. B. Saunders Company.

The Chicago number of the Surgical Clinics contains a number of most interesting clinics by the leading surgeons of the various hospitals, includ-

ing Dr. Thomas J. Watkins, Arthur D. Bevan, William M. Harsha, Hugh N. MacKechnie, Edward Louis Moorehead, Albert J. Ochsner, Kellogg Speed, Arthur H. Curtiss, D. N. Eisendrath, Ralph Bettman, David C. Strauss and a number of others.

Among the clinics we find cases of Carcinoma of the Colon, rectocele, ulcerative colitis, Brodie's abscess, chronic empyena, etc., all subjects of great interest and practical value.

The Surgical Clinic of North America. (Issued serially, one number every other month.) Volume 4, Number 4 (Cleveland Number, August, 1924), 248 pages with 218 illustrations. Per clinic year (February, 1924, to December, 1924). Paper, $12.00; cloth, $16.00 net. Philadelphia and London, W. B. Saunders Company.

This is the Cleveland number and contains contributions from all the leading surgeons and internists of Cleveland, Ohio, headed by Dr. George W. Cryle, Robert Dinsmore, Frank E. Bunson, W. E. Lower, Henry J. John, I. M. Watkins and a number of other capable clinicians.

The main subjects discussed are Carcinoma of the Larynx, Tumors of the Breast, Banti's Disease, Streptococcus Veridans, Endocarditis, Herpes Zoster associated with Paralysis, Migraine and other interesting topics.

Full Denture Prosthesis. By Dayton Dunbar Campbell, D.D.S., Professor of Full Denture Prosthesis in the Kansas City-Western Dental College, Kansas City, Mo. With 282 illustrations, including six in color. St. Louis. The C. V. Mosby Company. Price $7.50.

This book written by a competent authority is of the utmost value not only to students but also to general practitioners. The author hopes that his book may serve to remove from full denture prosthesis some of the mystery surrounding it and to free it from some useless traditions with which all of us are only too painfully familiar.

It is hoped that others will study this special line of work. This book, which is wonderfully well illustrated, well written, clear and concise, treats, then, of the detailed technique in the construction of Maxillary and Mandibular, of psychological phases of full denture prosthesis, immediate denture service, physiological, anatomical and physical factors pertaining throughout, impression taking, casts, occlusion, etc., rebasing, repairing, articulations, etc., all constituting a splendid treatise on this subject.

Medical Gynecology. By S. Wyllis Bandler, M.D., Professor of Gynecology, New York Post-Graduate Medical School and Hospital. Fourth Edition, thoroughly revised. Octavo of 930 pages, with 157 original illustrations. Philadelphia and London, W. B. Saunders Company, 1924. Cloth, $8.00 net.

As every general practitioner does more or less gynecology of the non-operative kind, we are fortunate in having a book of this type which con-

fines itself to the description of medical gynecology, teaching the student and practitioner how to make a diagnosis, what do do, and particularly, what not to do.

This is the fourth edition, thoroughly revised and brought up to date. We are glad to find that the author has sane ideas, in the so-called Freudian field, and that he points out the danger of the suggestions instilled into the patient by the specialists in that line, who, in our opinion in most cases, constitute the most positive danger to the patient as well as to the community at large. The author well writes regarding the Freudian theory: "We wish to state here that we deplore very decidedly the present day, broadly spread epidemic of these ideas. We believe that the sexual factor as a causative element in the neuroses and psychoses has been tremendously exaggerated and erroneously interpreted." We agree with Goodheart and Dercum that the interpretation of dreams is decidedly productive of a vast amount of harm. Practically all of the phallic symbolism, in our judgment, as well as by the authors quoted, are suggested to the patient by the interpreter, nine-tenths of whom, in the opinion of the reviewer, ought to be in the penitentiary at hard labor and solitary confinement. It is one of the biggest fakes ever perpetrated on a long-suffering people.

However, to return to the book, to those who are not acquainted with it, of which there can be only a very few, we will state that this book treats of examinations and diagnoses, the various methods employed in medical treatment, endocrine glands, amenorrhea, dysmenorrhea, leukorrhea, sterility, endocervicitis, endometritis, metritis, perimetritis, malposition carcinoma, ectopic gestation, etc. It is an eminently practical work throughout, and the reader will discover a mass of suggestions which will be of the very greatest value to him in every day practice, and for this reason we most cordially recommend this book.

THE FOUNDATION OF HEALTH. A Manual of Personal Hygiene for Students, by William Barnard Sharp, S.M., M.D., Ph.D., Professor of Bacteriology and Preventive Medicine in the Medical Department of The University of Texas, Galveston, Texas. Lea & Febiger, Philadelphia and New York. Price $2.50.

This is an exceedingly practical book, and after reading a few chapters, we have come to the conclusion that it is one of the best books we have ever read on the subject,—one which we should like to see in every family, a sane book, a practical book, up-to-date and practically free of anything one might care to criticize. It is a book that is bound to grow, as numerous editions will be called for.

WHAT DOES YOUR CHILD WEIGH? By Edith B. Lowry, M.D., Orchard Hill Camp Series. Chicago, Forbes & Company. Price $1.25.

This book is to guide the mother in her care for children from the period between two and sixteen, or thereabouts, giving full directions as to

diet, development, causes of underweight, hours of rest and sleep, environment, correction of physical defects, and everything else required to instill a sound constitution in every growing child. We give it our most cordial endorsement.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A.M., M.D. Professor of Obstetrics at the Northwestern Medical School. Fourth edition, thoroughly revised. Large octavo of 1123 pages, with 923 illustrations, 201 of them in colors. Philadelphia and London, W. B. Saunders Company, 1924. Cloth $12.00 net.

This book is the most important one before us for review and will require the least attention of any, as the book is so universally known and so favorably known that our task is easy. While there may be a choice of opinions as to which book on obstetrics each man prefers, there can be no difference of opinions as to the fact that there is none better than DeLee's obstetrics.

This splendid volume appears now in the fourth edition, which has been thoroughly revised and brought fully up to date. Those who know the talented author know that a revision means for him to go over each chapter, every page and every line, not only of his own book, but of all other reference books which have appeared since he revised the last edition of his own book.

We are glad to have the author state that a strictly conservative attitude has been maintained throughout the book and that he agrees with many others who believe that the infant mortality from obstetric operations is due to meddlesome midwifery. As the author well says, "It is one thing to deliver a patient in a first-class lying-in hospital and another thing if the same work is done by a general practitioner (who knows more or less about the subject, generally less)."

Indeed it is the greatest mystery of all to the reviewer that so many children are lucky in escaping death by reason of unnecessary forceps, unnecessary operation and version, pituitrin administration, etc. It does look as though providence assists both mothers and children and protects them from the dangers of unskilled attendants.

We notice many additions in the section treating of eclampsia, heart disease, x-ray diagnosis, and especially operative obstetrics. We also find a dozen new illustrations demonstrating the author's favorite supra-symphyseal cervical Cesarean operation, which he hopes will be generally adopted in order to reduce the present extraordinary mortality.

In short, this is a magnificent work on obstetrics, by a most talented author, an able authority of exceedingly wide experience, and no man practicing obstetrics should be without a copy of this work.

NATIONAL HEALTH SERIES. Edited by the National Health Council. Funk & Wagnalls Co., New York and London. Price, $6.00.

We have before us the last six volumes of the twenty volume National Health Series, which completes this series of popular books for the laity at a very low price indeed. We have given our cordial endorsement to the other fourteen volumes, and we have nothing but kind words to say about the last six, which are as follows:

Adolescence, Educational and Hygienic Problems, by Professor Maurice A. Bigelow of Columbia University, intended especially for the guidance of parents.

Exercise for Health, by Dr. Lenna L. Meanes, assisted by Esse V. Hathaway, showing by numerous illustrations and general instructions how to avoid overweight, especially for women, and general exercises to maintain good and vigorous health.

The Child in School, Care of Its Health, by Professor Thomas D. Wood of Columbia University, relating to health training, as well as habit training, and is especially valuable during the school age of children.

Health of the Worker, How to Safeguard It, by Lee K. Frankel, of the National Health Council and the Metropolitan Life Insurance Co., who have paid a great deal of attention to this problem and has done much to improve the working conditions of the employee.

Home Care of the Sick, by Clara D. Noyes, R.N., director of the nursing service of the National Red Cross. The book is especially for mothers to teach them how to take care of their sick children. It tells them what to do and how to do it—an especially practical book.

Your Mind and You, by Dr. George K. Pratt, medical director of the Massachusetts Society for Mental Hygiene, in Boston. It contains a wealth of information regarding not only the mind but the influence of the mind on the body, which takes in nervousness, mental upsets, causes of mental diseases, etc.

It is astonishing to think that this large series of twenty health books edited by the National Health Council, composed of leading representatives of the health associations in the United States, in such an excellently readable form can be retailed at $6.00 for the entire series. Personally, we know of no better way of investing $6.00 than in the National Health Series,—the sooner the better. The information obtained through the little volumes at that price is well worth six hundred times six dollars, and only general apathy and mental deficiency can prevent anybody from missing this wonderful opportunity given us by the National Health Council.

Personal—Dr. Wilson Ruffin Abbott, formerly clinical director of the Chicago Tuberculosis Institute and medical director of the Edward Sanatorium, Naperville, Ill., who for the past three years has been medical director of U. S. Veterans' Bureau Hospital No. 55, Fort Bayard, N. M., has returned to Chicago and taken over the practice and office of his late friend and associate, Dr. O. W. McMichael.

Announcement has been made of the marriage of Dr. Herbert H. Frothingham and Mrs. Charlotte Evans Zeigler on October 2nd.

Dr. James W. Pettit, Ottawa, was re-elected president of the Illinois Tuberculosis Association at the recent annual convention in Decatur. Drs. Lewis C. Taylor, Springfield, W. C. Reineking, Rockford, and Cecil M. Jack, Decatur, were elected first, fourth and fifth vice presidents, respectively, and Mrs. Frank P. Auld, Shelbyville, secretary.

Memorial Service for Dr. Sippy.—The University of Chicago held memorial services in Leon Mandel Hall at 4 o'clock, November 9, in honor of the late Dr. Bertram W. Sippy.

Scholarships.—"Scholarships on the Oliver-Rea Foundation for graduate study in Medicine are available at the New York Post-Graduate Medical School and Hospital.

"Inquiries should be addressed to the Dean, 301 East Twentieth Street, New York City."

Royal College of Physicians of London.—Prof. Archibald E. Garrod delivered the Harveian oration, October 18, before the Royal College of Physicians at London, on "The Debt of Science to Medicine," after which the president, Sir Humphry Rolleston, presented the Weber-Parkes prize and medal to Prof. A. Calmette, subdirector of the Pasteur Institute, Paris for research on tuberculosis, to whom the president referred as the foremost authority on this subject. The Moxon gold medal was then presented to Sir Leonard Rogers for research in clinical medicine.

Stairway Accidents.—F. H. Stebbins, an engineer, states in the Industrial Hygiene Bulletin that in Manhattan alone there have been more than 100 deaths in a single year due to falls on stairs, and that in the United States about 14,800 fatalities a year are due to such accidents, the majority due to tripping or slipping, the latter by far the more frequent. About 85 per cent of these accidents occur during December, January and February on account of snow, ice, water and poor lighting. He recommends that stairs used by the public be covered with metal treads, constructed so that water will drain off.

State Society and Women's Clubs.—The Illinois State Medical Society has arranged a program of active cooperation with the Illinois Federation of Women's Clubs during the coming year for health work, one project being a series of conferences. The first conference will be at Urbana, November 12-13. Physicians, recommended by the state medical society, will discuss the prevention and cure of disease, studies will be made to appraise the actual health needs and an effort made to use local and auxiliary agents to meet those needs. Following these inventories, educational work will be conducted in those parts of the state where the need seems greatest.

Detroit County Medical Society.—The Medical Library of the Wayne County Medical Society has been turned over to the custodian of the public library commission, Detroit, and moved to 625 Mullett Street, in accordance with an agreement made last year. The trustees of the Wayne County Medical Society still hold the land contract which was made in agreement with the purchasers of the society's property, who are awaiting a favorable time to build. In the meantime, the medical society uses the property free from rent and taxes. The board of trustees has not sought a new location in view of the favorable conditions under which the society occupies this property, believing that the full purchase price should be in hand before the society commits itself to a new investment.

Dr. George H. Simmons Honored in England.—Dr. George H. Simmons, who is temporarily in England, was entertained at a dinner at the Oriental Club in London, October 20, by Dr. Aldo Castellani, noted authority on tropical diseases. He also was the guest of honor at the annual council dinner of the British Medical Association, October 22, the other guests including Sir Arthur Robinson, first secretary of the ministry of health, and Sir St. Clair Thomson, president of the Royal Society of Medicine. November 14, Dr. Simmons, accompanied by Dr. Casey A. Wood and other members of the party, will sail for Ceylon. The party will remain in India until March, when it is expected to depart for the Malay States, China and Japan, returning to the United States by way of the Philippine Islands.

Tb. Posters at University of Illinois.—Mrs. Theodore B. Sachs, superintendent of the Chicago Tuberculosis Institute, is very much pleased to announce that an exhibit of the Institute's posters is being displayed at the University of Illinois.

At the request of the Dean of Women, a group of hand made posters received by the Institute in its recent poster contest among high school students of Chicago and Cook County, have been sent to Urbana for this purpose. The posters represent two classes; those on general health, and those on the Christmas seal.

They show excellent workmanship and are a credit to the art departments of the high schools represented. Many of them are worthy of professionals. The Institute considers them particularly interesting as showing the interest among our young people in the growing importance of public health work and the prevention of disease.

Births and Deaths in Cook County.—The Chicago Tuberculosis Institute sends in the following figures for Cook County for the first six months of 1924, showing the number of births and deaths as published by the State Department of Health:

Town	Births	Stillbirths	Deaths
Berwyn	113	1	68
Blue Island	161	6	83
Chicago	26,520	1,217	17,541
Chicago Heights	189	13	125
Cicero	248	13	138
Evanston	718	34	260
Forest Park	41	3	62
Maywood	80	1	57
Oak Park	983	29	57
Total for Cook County	30,318	1,366	20,279

The Jefferson Clinic, organized in 1911, and the first "group medicine" clinic established in the state, formally opened a diagnostic hospital in Detroit, October 1. It has a capacity of fifty beds and is owned entirely by physicions. The speakers were Drs. Water H. MacCraken, Angus McLean and Heinrich A. Reye, all members of the faculty of the Detroit College of Medicine and Surgery.

Trustworthy!

The extent to which innumerable practitioners of medicine are today employing

Gray's Glycerine Tonic Comp.

(Formula Dr. John P. Gray)

whenever a dependable reconstructive tonic is called for, tells in no uncertain way of its therapeutic utility and gratifying efficiency.

During the thirty-five years this reliable tonic has been at the service of the profession, the quality of its ingredients and the unvarying character of the composite product have been consistently and faithfully maintained.

Thus it is easy to understand why the host of medical men who have learned how reliable it is in its character and results, not only take pains to order the original Gray's Glycerine Tonic Comp. (P. F. Co.), but also to see that their patients get no other!

Such care is well worth while, for it often measures the difference between success and failure.

The Purdue Frederick Co.

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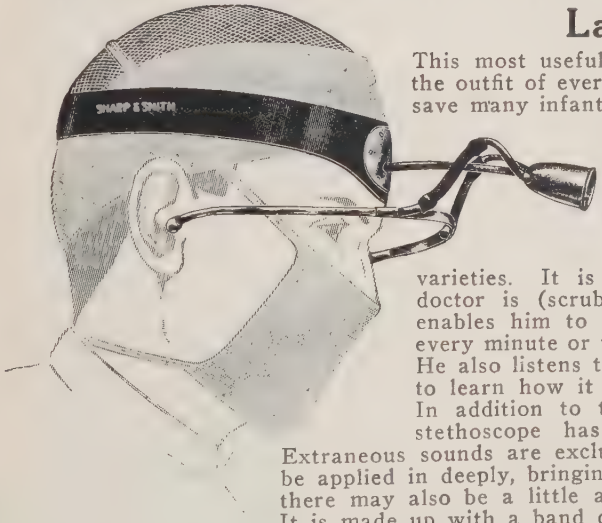
The De Lee-Hillis Head Stethoscope

Latest Model



This most useful instrument should be part of the outfit of every obstetric practitioner. It will save many infants' and mothers' lives.

It was designed especially for use during the second stage of labor of both (spontaneous and operative), but it is even more useful for all the purposes of a stethoscope than the usual varieties. It is worn on the head after the doctor is (scrubbed up) for the delivery and enables him to listen to the fetal heart tones every minute or two without infecting his hands. He also listens to the mother's heart frequently to learn how it is bearing the strain of labor. In addition to this great advantage the head stethoscope has valuable acoustic properties. Extraneous sounds are excluded; by pressure the bell can be applied in deeply, bringing it closer to the fetal heart—there may also be a little audition from bone conduction. It is made up with a band over the top of the head, with a circular fibre head band and, for easy portability, with a ribbon woven strap.

Price, $7.50 Each

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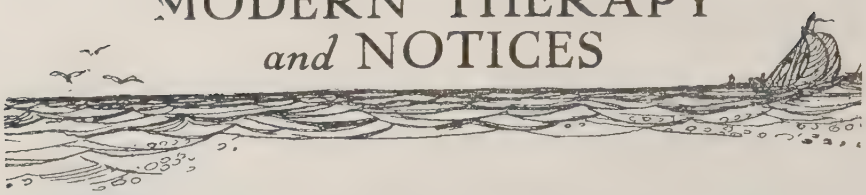

CHRONIC GALL BLADDER INFLAMMATION—Chronic catarrhal inflammation of the gall bladder is much more common than is generally realized. Its main danger undoubtedly lies in its tendency to cause biliary stasis and thus give rise to gall-stones. To prevent these conditions and increase the flow of bile there is no remedy more effective than chionanthus virginica in the form of Chionia. Although highly potent as a cholagogue, Chionia never produces severe or extreme catharsis.

NEW TABLETS MADE BY ARMOUR & CO.

"Armour & Co. announce the addition of Parathyroid and Calcium Lactate Tablets. Each tablet contains 1/20 grain of pure Parathyroids and 2½ grains Calcium Lactate U. S. P. These tablets are packed in bottles of 100 and they are obtained from drug trade and dealers in physicians' supplies everywhere."

MILK OF MAGNESIA AND MINERAL OIL NOW SUCCESSFULLY COMBINED

Those in the medical profession who have not already heard of it will be interested to know that it is now possible to obtain a scientific emulsion of milk of magnesia and mineral oil.

For several months this preparation has been on the market, being offered to the public under the name of Haley's Magnesia-Oil. Having taken years to perfect, the successful achievement is all the more notable.

In commenting on this most important contribution to medical science, a well-known doctor says, "I don't know of any discovery in recent years more valuable to the human race than the perfection of this compound of milk of magnesia and mineral oil.

"For years, doctors have realized that in order to do the most good, and to do it quickly, milk of magnesia must get into the lower bowel without losing its properties. But until now no way has ever been found to make this possible.

"In Haley's M-O, however, the milk of magnesia is thoroughly emulsionized with mineral oil, mixing completely with the oil. The oil flows quickly to the lower bowel and takes the milk of magnesia with it. Both work together as they should. One acts to neutralize the acids that cause 'sour stomach' and the other lubricates."

Health Food

plus

The rich deliciousness that tempts indifferent appetites

Whole grains, crisp and toasty; the enticement of a confection, the flavor of nutmeats—that is Puffed Wheat and Puffed Rice.

Steam exploded to eight times natural size, every food cell is broken to make digestion easy. Children adore them—no adult appetite but delights in the delightful change from ordinary cereals which they offer.

For breakfast, Puffed Rice. At bedtime, Puffed Wheat. At luncheon, either one in a bowl of half and half—one of the three may solve a problem for you today.

Quaker Puffed Wheat
Quaker Puffed Rice

For Pleurisy, Influenza, La Grippe, Pneumonia.

FORMULA

Guaiacol 2.6, Formalin 2.6,
Creosote 13.02, Quinine 2.6
Methyl Salicylate 2.6,
Glycerine and Aluminum Silicate, qs 1000 parts,
Aromatic and Antiseptic Oils, qs

Pneumo-Phthysine
TRADE MARK

Used promptly and persistently in these conditions, PNEUMO-PHTHYSINE has for years proved an invaluable aid to the physician.

Even in common cough or cold, it is of value in preventing the development of more serious conditions, as it affords quick relief, with no bad after-effects and no derangement of the digestive organs.

The formula of PNEUMO-PHTHYSINE tells the story. In this emplastrum the medicaments are presented in a form suitable for absorption through the skin.

PNEUMO-PHTHYSINE brings about an immediate decrease in fever temperature and holds the temperature under control, at the will of the physician.

It is an ethical product, which is not advertised to the public.

Send This Coupon for Clinical Trial Specimen

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Gentlemen:

Please send me, free of charge, a clinical trial specimen of PNEUMO-PHTHYSINE.

Dr. .....

Address .....

.....

A story is told by Brigadier-General of the Civil War and now hailing from New York, apropos the hospitality of Boston: A clergyman, a temperance lecturer, was in Boston on a December day. He was walking along the Beacon Street Mall, when he slipped on the ice, and saved himself by sitting on one of the benches there. Recovering his breath, he started up and slipped again, and sat down upon the bench. A little girl came along and said, "Lean on my shoulder and I'll help you!" "But, my child," said he, "you are not strong enough to help me!" "Oh, yes, I am," said she. "I've helped father many a time when he was drunker than you are!"

Worse Than 'Gators.

The Florida beach and blue sea looked inviting to the tourist, but before going to swim he thought he would make sure.

"You're certain there are no alligators here?" he inquired of the guide.

"Nossuh," replied the latter, grinning broadly. "Ain' no 'gators hyah."

Reassured, the tourist started out. As the water lapped about his chest he called back: "What makes you so sure there ain't any alligators?"

"Dey's got too much sense," bellowed the guide. "De sharks done skeered dem all away."—Lawyer and Banker.

John asked Clara
To take
A walk with him
And Clara's brother
Came along
And so
They picked flowers.

—Boll Weevil.

His Job.

An American friend just over from the States dropped in to the "Passing Show" office with the latest joke on the American passion for standardization. A man was being questioned by an employer on his suitability for a fairly important job as mechanic.

"But," said the employer, "are you an all-around man—a thoroughly trained mechanic?"

"Oh yes," the man assured him; "for six year I had experience at the Ford works.

"And what did you do there all that time?"

"Well," said the man, "I screwed on nut 467."—The Passing Show (London)

Hot oats, doctor

Now prepared in 3 to 5 minutes —a new Quaker Oats

MANY doctors have told us that in many homes, especially those with children, hot oats and milk are served too seldom, largely because of the time required in cooking.

So we now offer a new-type Quaker Oats—Quick Quaker—which cook thoroughly in 3 to 5 minutes.

That is quicker than plain toast. No reason now to deny children the invigorating breakfasts that they need; the breakfasts high in calories, protein and minerals.

Quick Quaker is the same as the Quaker Oats you have always known. The grains are rolled thinner and partly cooked. That is the only difference — they cook faster. All the rare Quaker flavor is retained, all the high quality in grains and milling that has ever given Quaker first place throughout the world.

May we hope, that where oat breakfasts are indicated, you will mention this quick cooking feature of Quaker to your patients?

Standard full size and weight packages—
Medium: **1¼ pounds;**
Large: **3 pounds, 7 oz.**

Quick Quaker

Cooks in 3 to 5 minutes

Quaker Oats

The kind you have always known

THERAPEUTIC HINT No. 11

THE BUSY DOCTOR WELCOMES ANYTHING THAT WILL ASSIST HIM IN LOCAL GYNECOLOGICAL TREATMENT. LEUCORRHEA, EXCESSIVE SECRETION, RELAXATION OF TISSUE, CONGESTION, ULCERATION OR EROSION, ENDOCERVICITIS, PRURITIS VULVÆ, ARE INDICATIONS FOR

MICAJAH'S
Medicated Wafers

WHICH ARE ASTRINGENT, ANTISEPTIC, SOOTHING, AND HEALING. EASILY USED. PATIENT CAN BE INSTRUCTED TO USE THEM HERSELF DURING INTERVALS BETWEEN VISITS. MAY BE USED AS SUCH, OR POWDERED, OR DISSOLVED IN WATER FOR TAMPON USE. ECONOMICAL, EFFICIENT, ETHICALLY ADVERTISED ONLY.

Sample literature, interesting booklet, "Pioneers in American Medicine" on request.

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143 Conewango Avenue WARREN, PA.

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GENUINE
GLUTEN FLOUR

Guaranteed to comply in all respects to standard requirements of the U. S. Department of Agriculture.

Manufactured by
THE FARWELL & RHINES CO.
Watertown, N. Y., U. S. A.

SAL HEPATICA
LAXATIVE and ELIMINANT

Efficacious in all conditions where intestinal sluggishness arising from functional derangement of the liver and portal circulation is a factor. Sal Hepatica cleans the entire alimentary canal.

Samples for Clinical Purposes

Bristol-Myers Co.
New York

THE ELMS HOTEL

(AMERICAN PLAN)

EXCELSIOR SPRINGS, MISSOURI

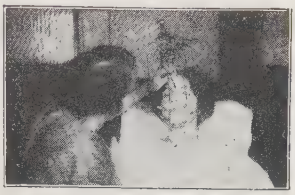
Set in a beautiful ten-acre park this exquisite, modern, fire proof Hotel affords an atmosphere of luxury and restfulness seldom found.

The mineral waters of this famous resort are well recognized as being most efficacious in the treatment of many ailments.

Golf Horseback Riding Dancing Tennis
Boating Swimming

Write for Booklet No. 50 and analysis of the various water.
Rates Quoted Upon Request

ELECTROLYSIS
For Superfluous Hair



The only permanent cure known for superfluous hair, moles, warts, etc. I Positively Guarantee My Work to be Permanent. No Pains or Scars. I use Multiple Electrolysis (many needles), the quickest, cheapest and most reliable of all electric needle methods. Special attention to cases referred to me by physicians.

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TO CLEAR THE OPERATING FIELD

Sterile, Antiseptic, Non-Irritant

Use NEET—A bland cream that removes hair without irritating the skin.

In favor with many of the medical profession for depilating in preparation for delivery. Especially valuable if patient insists on home confinement.

Useful in preparation for all abdominal operations or operations on the pubic region.

Indicated where simple ulcers on vulva make shaving difficult and painful.

Relieves patient of the discomfort and risk attending the use of a razor.

Incoming growth is slower to reach the surface than if shaved, and is softer and finer than growth following the use of a razor.

A full size trial tube with complete instructions for use will be mailed without charge to any physician requesting it.

HANNIBAL PHARMACAL CO.,—612 Locust St.,—St. Louis, Mo.

DISEASES in many instances can be averted. The application of preventive measures will often "nip trouble in the bud." Symptoms, properly handled

YIELD TO indicated remedial agents. In a large number of cases drugs are not essential. The stimulation of elimination by such a means as nature's remedy,

PLUTO WATER

is all that is necessary to reestablish normal physiologic function.

Sample and literature to the medical profession on request to the

FRENCH LICK SPRINGS HOTEL COMPANY, French Lick, Indiana

Department of Pathology, Bacteriology and Serology

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Established 1893

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X-RAY DEPARTMENT—most modern and completely equipped, including the interpretation of an Expert Roentgenologist, if desired, with Twenty Years Experience.

DRUGS AND MEDICINES analyzed for Strength—Purity—Composition.
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A LABORATORY OF PROGRESS—qualified to satisfactorily Solve Manufacturing and Industrial Problems; Investigate Patent and Legal Affairs; Analyze Foods, Flour, Grain, and Feed for Quality, Purity and Composition.

Salvarsan Room for Doctors

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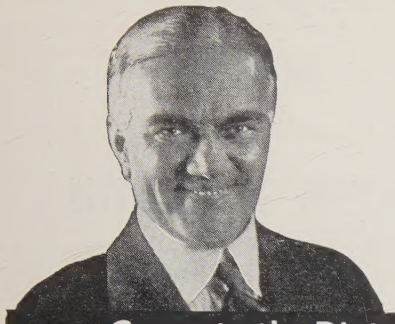

COMBINES the delightful qualities of effervescence with the well-known digestive properties of Peptenzyme.

The powerful and effective action of Peptenzyme, supplemented with the tonic and refreshing effects of effervescence, thus insures both

PERMANENT BENEFIT AND PROMPT RELIEF

in gastralgia, nervous and fermentative dyspepsia, flatulence, atonic indigestion, and to relieve the gaseous fermentation that usually causes so much discomfort in digestive disorders.

It is palatable to the nth degree and gives the physician a cooling and refreshing beverage, free from any hint of medicine, yet pregnant with therapeutic value.

Converts the Distresses of Indigestion into a Smile

SOMETHING NEW

PEPTENZYME EFFERVESCENT GRANULES

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When Sedative Action Is Imperative

especially under conditions requiring avoidance of stomach disturbances or those ill effects common to most bromides,

PEACOCK'S BROMIDES

will be found invaluable.

It is the foregoing that has made this preparation so uniformly dependable in all acute and chronic conditions needing sedative action, or in those cases where bromides require administration over long and continued periods.

A Sluggish Liver

must not be neglected in acute or chronic ills, or disaster is certain. Innumerable are the cholagogues used and recommended, but most of these have the drawback of exciting too active catharsis.

CHIONIA

is the one stimulant of the hepatic functions that will produce its effect without at the same time setting up too great bowel activity.

It is easy to understand, therefore, how the obvious advantages of Chionia have given it the wide range of use it enjoys in countless gastric, hepatic and intestinal conditions.

PEACOCK CHEMICAL COMPANY, St. Louis, Mo.

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ALWAYS a SOOTHING and CORRECTING influence

throughout the Urinary Passages

For URETHRITIS—CYSTITIS—PROSTATITIS

AND

For collateral use in general practice to alleviate

PAINFUL MICTURITION

Write for literature and sample. *OD CHEM. CO., 59-61 Barrow St., NEW YORK*

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HEADACHES

Bowel Inactivity

calls for efforts that not only will empty but restore as promptly and satisfactorily as possible, the physiologic action and tone of the intestinal tract. To accomplish this

PRUNOIDS

has no superior. Absolutely free from irritating effect, this ideal laxative never gives rise to griping or extreme peristalsis, but through its stimulation of natural processes, produces as near to normal--or physiologic--evacuations, as may be possible.

The "Limping" Heart

is at once supported and regulated by the systematic use of

CACTINA PILLETS

Thus employed Cactina gradually improves the nutrition and tone of the heart muscle, restores the cardiac rhythm and renders the heart more resistant to irritating influences.

Cactina is a true cardiac tonic without cumulative effect.

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The prudent practitioner, being guided by the dictates of experience, relieves himself from disquieting uncertainty of results by safeguarding himself against imposition when prescribing
ERGOAPIOL
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The widespread employment of the preparation in the treatment of anomalies of the menstrual function rests on the unqualified indorsement of physicians whose superior knowledge of the relative value of agents of this class stands unimpeached.
By virtue of its impressive analgesic and antispasmodic action on the female reproductive system and its property of promoting functional activity of the uterus and its appendages, Ergoapiol (Smith) is of extraordinary service in the treatment of
AMENORRHEA, DYSMENORRHEA
MENORRHAGIA, METRORRHAGIA
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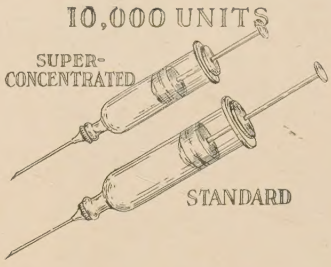
ERGOAPIOL (Smith) is supplied only in packages containing twenty capsules. DOSE: One to two capsules three or four times a day. Samples and literature sent on request.
MARTIN H. SMITH COMPANY, New York, N. Y., U. S. A.

Three Essentials



Super-Concentrated Diphtheria Antitoxin

For curative treatment and immunization of contacts.

An Antitoxin of very low protein content, small bulk, highly refined which minimizes serum sickness and is rapidly absorbed.

Less bulk—Less pain—Quicker results.

DOSAGE—1000, 3000, 5000, 10,000, 20,000 units.

Supplied in Mulford Perfected Syringes, ready for immediate use.

Diphtheria Toxin-Antitoxin Mixture

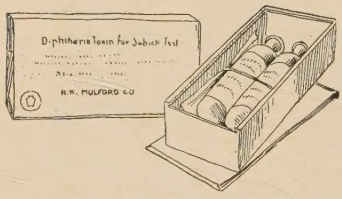
To produce a lasting immunity, which develops in about eight weeks and continues effective for some years, probably for life.

Immunization of children of pre-school age and up to 10 years is recommended.

DOSE—3 injections of 1 cc each, at 7-day intervals.

Supplied in packages containing

3-1 cc vials (1 immunization).
30-1 cc vials (10 immunizations).
10-cc vials (3 immunizations).
30-cc vials (10 immunizations).



Schick Test Toxin

To determine susceptibility to diphtheria.

DOSE—0.1 cc injected between the layers of the skin.

Supplied in packages containing sufficient material for 50 tests.

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